

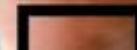
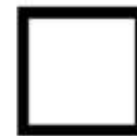
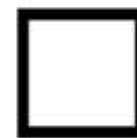
**KARNATAKA**

**THE SILICON VALLEY OF INDIA**



# Table of Content

▶ Executive Summary .....	3
▶ Introduction .....	5
▶ Economic Snapshot .....	10
▶ Physical Infrastructure .....	16
▶ Social Infrastructure .....	25
▶ Industrial Infrastructure .....	28
▶ Key Sectors .....	30
▶ Key Procedures & Policies.....	40
▶ Annexure.....	53



## Strong growth in GSDP

- At current prices, the Gross State Domestic Product (GSDP) of Karnataka stood at about Rs15.88 trillion (US\$ 227.25 billion) in 2019-20.
- The GSDP (in Rs) of the state grew at a CAGR of 12.80 per cent between 2011-12 and 2019-20.

## IT hub of India

- Karnataka is the IT hub of India & home to the fourth largest technology cluster in the world. It has 23 operational IT/ITeS SEZs, five software technology parks & dedicated IT investment regions.
- Exports of electronics and computer software from the state reached US\$ 62.67 billion 2016-17. Exports of IT & electronic products accounted for around 38.99 per cent share in India's electronics and computer software exports & 76.36 per cent share in Karnataka's overall exports.

## Vibrant industrial base

- Karnataka has vibrant automobile, agro, aerospace, textile & garment, biotech & heavy engineering industries. The state has sector-specific SEZs for key industries such as IT, nanotechnology, biotechnology, engineering, food processing and aerospace.

## One of the preferred investment destinations

- The cumulative FDI inflows in the state from April 2000 to June 2019 were recorded at US\$ 40.68 billion, the third highest in India after Maharashtra and New Delhi and accounted for a share of 9.0 per cent in India's cumulative FDI inflows.

Source: DIPP, Visvesvaraya Trade Promotion Centre, Karnataka Economic Survey 2017-18 Department of Industrial Policy & Promotion

## Strong growth in export

- During 2018-19, the total exports of the state were recorded at US\$ 17.35 billion. Sectors such as Petroleum products, Cotton Accessories and iron & steel are major contributors in the overall exports from the state.

## Strong knowledge infrastructure

- Karnataka has 52 universities, 4,519 pre-university colleges, 535 Technical Institutions, 206 engineering colleges & 314 polytechnics, 47 medical colleges & 38 dental colleges.
- The state also houses 401 R&D centres; around 400 of the Fortune Global 500 companies outsource their IT services to firms in Bengaluru.

## Significant agriculture base

- Sugarcane is the major crop of the state with production of about 34.2 million tonnes in 2018-19\*\*. The state's total food grain production is estimated to be 8.68 million tonnes in 2018-19\*\*. Karnataka is also the third largest producer of plantation crops in the country.

## Strong growth in tourism sector

- Karnataka boasts of a diverse flora & fauna & a 320 km natural coast line, which makes it a nature tourist's paradise. Tourist arrivals in the state increased from 36.7 million in 2006 to 102.3 million in 2017(*Up to November 2017*). The state has world heritage sites at Hampi & Pattadakal. The sector contributes 14.8 per cent to GSDP of Karnataka; plans are afoot to expand to 26 per cent by 2020.

**Source:** Economic Survey of Karnataka 2017-18 Karnataka State Budget 2018-19, \*\* As per 1st Advance Estimates (Kharif only)

# INTRODUCTION





Source: Maps of India

Parameters	Karnataka
Capital	Bengaluru
Geographical area (sq km)	192,000
Administrative districts (No)	30
Population density (persons per sq km)	319
Total population (million)	61.1
Sex ratio (females per 1,000 males)	973
Literacy rate (%)	75.6
Male literacy rate	82.5
Female literacy rate	68.1

- Karnataka is located in the southern region of India. The state is surrounded by the Arabian Sea in the west, Goa in the northwest, Maharashtra in the north, Andhra Pradesh in the east, Tamil Nadu in the southeast, and Kerala in the southwest.
- Languages spoken are Kannada, Tulu, Kodava, Hindi and English.
- Some of the prominent cities in the state are Ankola, Bengaluru, Bagalkot, Belgaum, Bidar, Bijapur, Chikmagalur, Chitradurga, Dandeli, Hubli-Dharwad, Mangalore, Mysore and Shimoga.
- Karnataka has a tropical climate with three major seasons: warm and dry from February to May, monsoon from June to October and winter from November to January.

Source: Economic Survey of Karnataka 2017-18, Census 2011 Office of Registrar General, India.

## High economic growth

- GSDP expanded at a CAGR of 14.76 per cent between 2011-12 and 2019-20
- Buoyant services (IT, tourism) and industries driving economic growth.
- Sector specific SEZs and SIRs facilitating growth.

## Rich talent pool

- Karnataka is termed as the Knowledge Capital of India.
- The state has successfully attracted skilled labour, especially, in the knowledge sector. Karnataka is among the states that produce a large number of doctors, engineers and medical technicians in the country.

## Advantage Karnataka

## Infrastructure

- Well-developed social, physical and industrial infrastructure and substantial port infrastructure.
- Well-developed telecom infrastructure.
- Excellent healthcare facilities.

## Policy support

- Wide range of fiscal and policy incentives for businesses under the Karnataka Industrial Policy, 2014-19 with simplified procedures for investment.
- In January 2017, Karnataka Department of Commerce and Industries introduced an NRI policy to attract investments from non-resident Kannadigas.
- Karnataka i4 policy to incentivise the new IT / ITeS to set up their facility in Tier 2/3 cities across Karnataka

*Source: Karnataka Udyog Mitra, D&B Cluster State Overview, Karnataka Vision 2020, Department of Industrial Policy and Promotion, Visvesvaraya Trade Promotion Centre.*

## Karnataka's Contribution to Indian Economy (2018-19)

Parameter	Karnataka	India
GSDP as a percentage of all states' GSDP	7.93	100.0
GSDP growth rate (%)	13.94	11.5
Per capita GSDP (US\$)	3,258	2,046.76

## Social Indicators

Parameter	Karnataka	India
Literacy rate (%)	75.6	73.0
Birth rate (per 1,000 population)	18.1	21.6

## Industrial Infrastructure

Parameter	Karnataka	India
Number PPP projects (No)	139	1824
Operational SEZs (No)	32	238

## Physical Infrastructure in Odisha

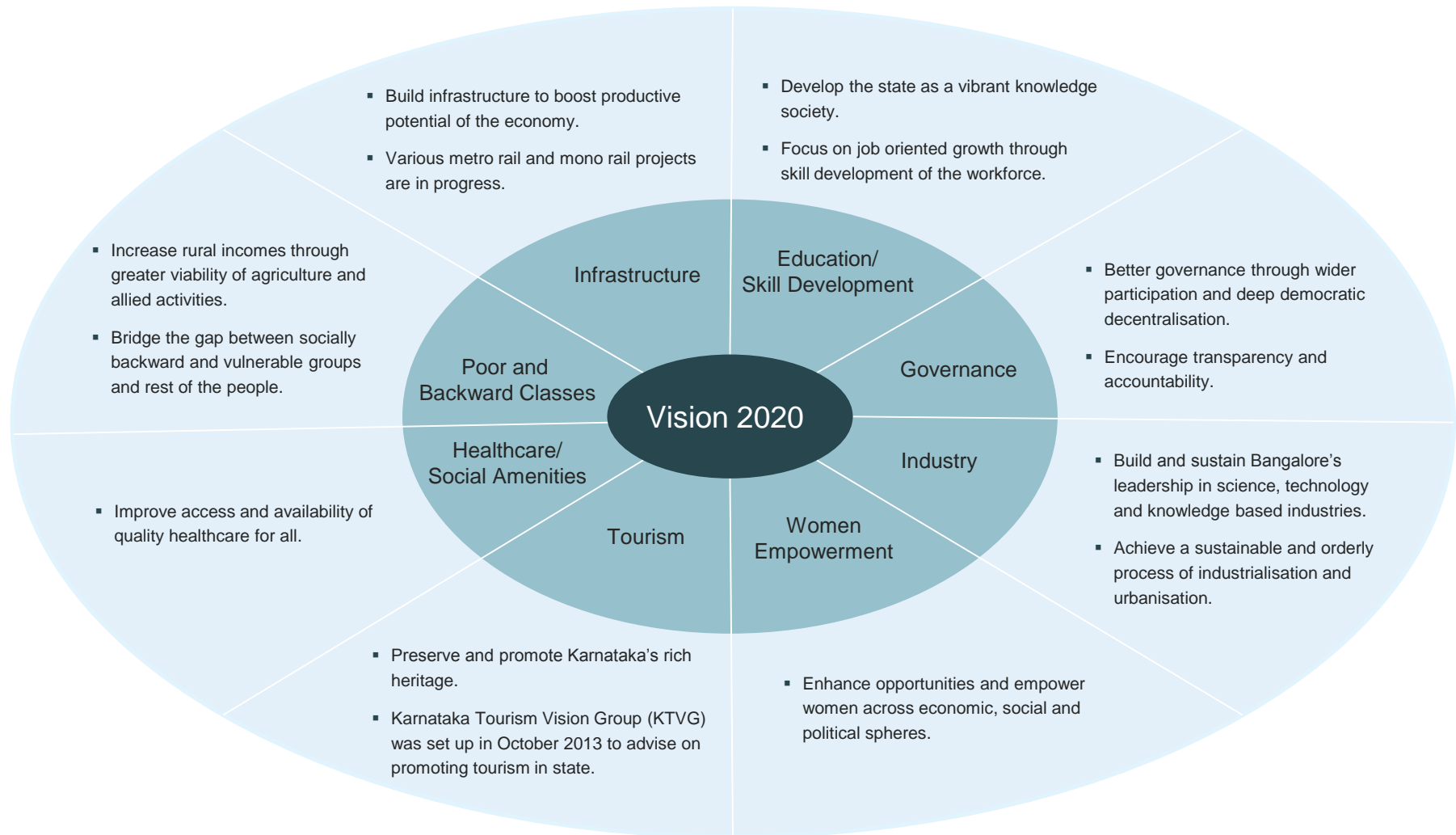
Parameter	Karnataka	India
Installed power capacity (as of November 2019)	28,452.85	364,960.14
Wireless subscribers (No) (as of Sept 2019)	69,106,506	1173,747,973
Internet subscribers (Mn) (as of June 2019)	42.25	665.31
National highway length (km)	7,335	1,32,499
Major and minor ports (No)	1 + 10	13+187
Airports (No)	5	129

## Investments (as of June 2019)

Parameter	Karnataka	India
Cumulative FDI equity inflows since April 2000 (US\$ billion)	40.68	436.47

*Note: GSDP, per capita GSDP figures are taken at current prices, For source refer to Annexure*



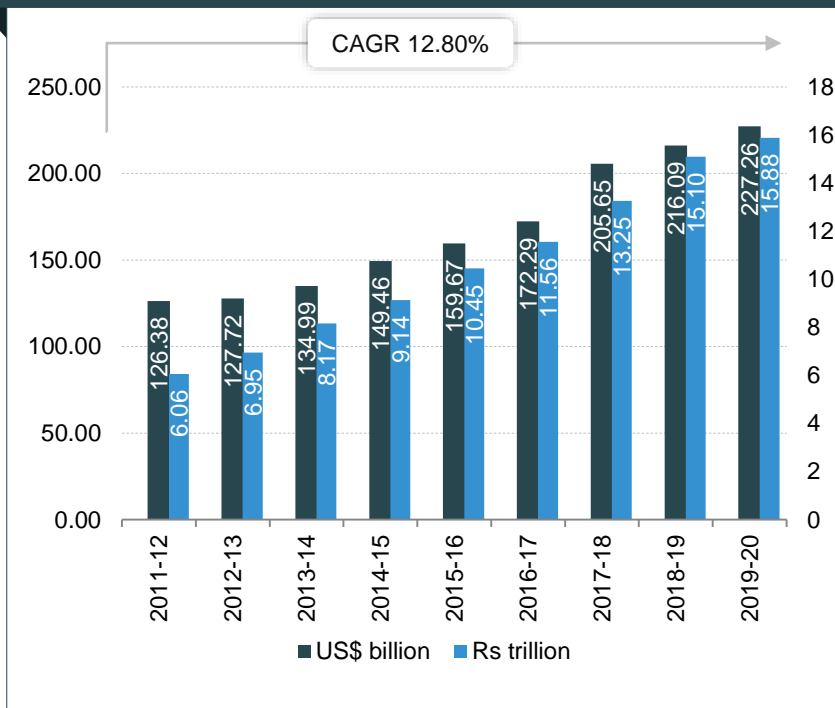


Source: State Planning Department

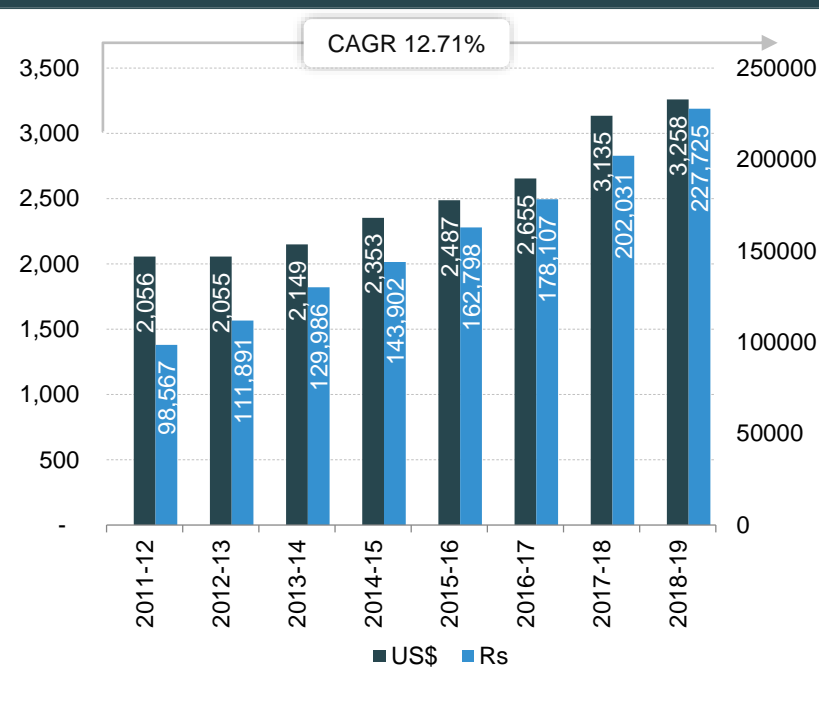
# ECONOMIC SNAPSHOT



### GSDP at current prices



### GSDP per capita at current prices



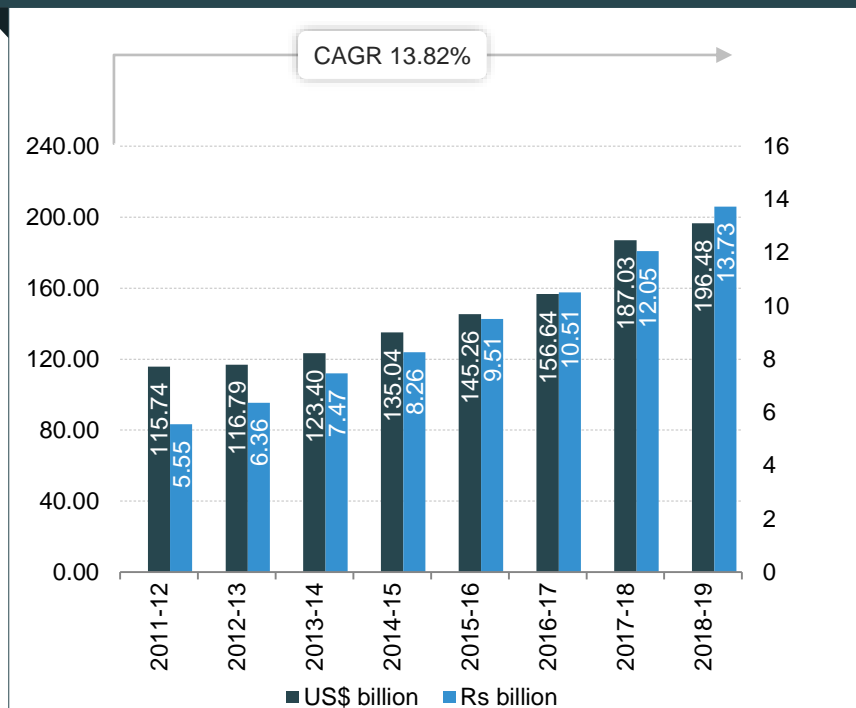
- At current prices, the Gross State Domestic Product (GSDP) of Karnataka stood at about Rs 15.88 trillion (US\$ 227.25 billion) in 2019-20.
- The GSDP (in Rs) of the state grew at a CAGR of 12.80 per cent between 2011-12 and 2019-20.

- The state's per capita GSDP was Rs 227,725 (US\$ 3,258) in 2018-19.
- The per capita GSDP (in Rs) increased at a CAGR of 12.71 per cent between 2011-12 and 2018-19.

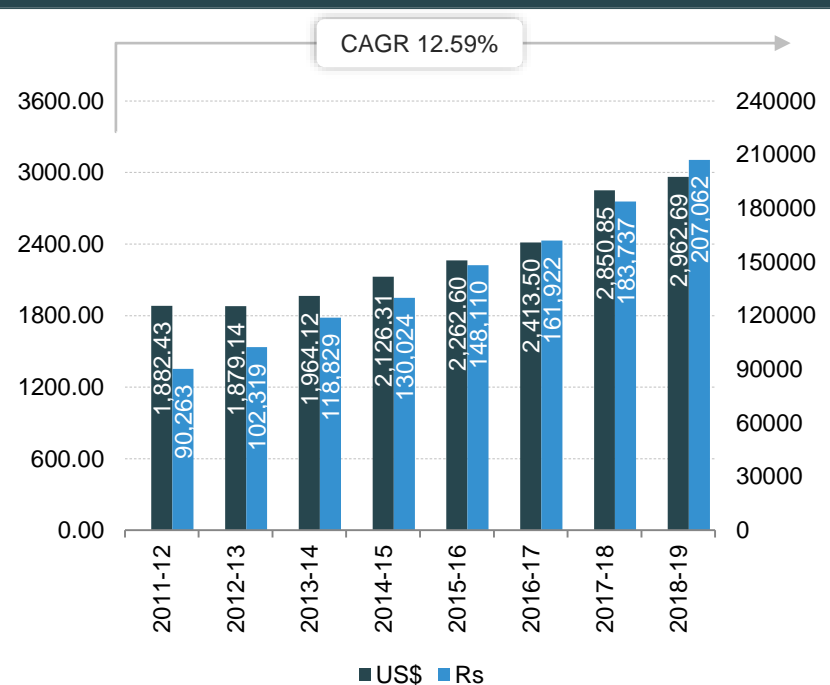
*Note: Exchange rates used are averages of each year, provided on page 55*

*Source: Directorate of Economics & Statistics of Odisha, Central Statistics Office, Socio Economic Survey 2017-18*

### NSDP at current prices



### NSDP per capita at current prices



- The Net State Domestic Product (NSDP) of Karnataka was recorded at about Rs 13.73 trillion (US\$ 196.48 billion) in 2018-19.
- The NSDP (in Rs) of the state grew at a CAGR of 13.82 per cent between 2011-12 and 2018-19.

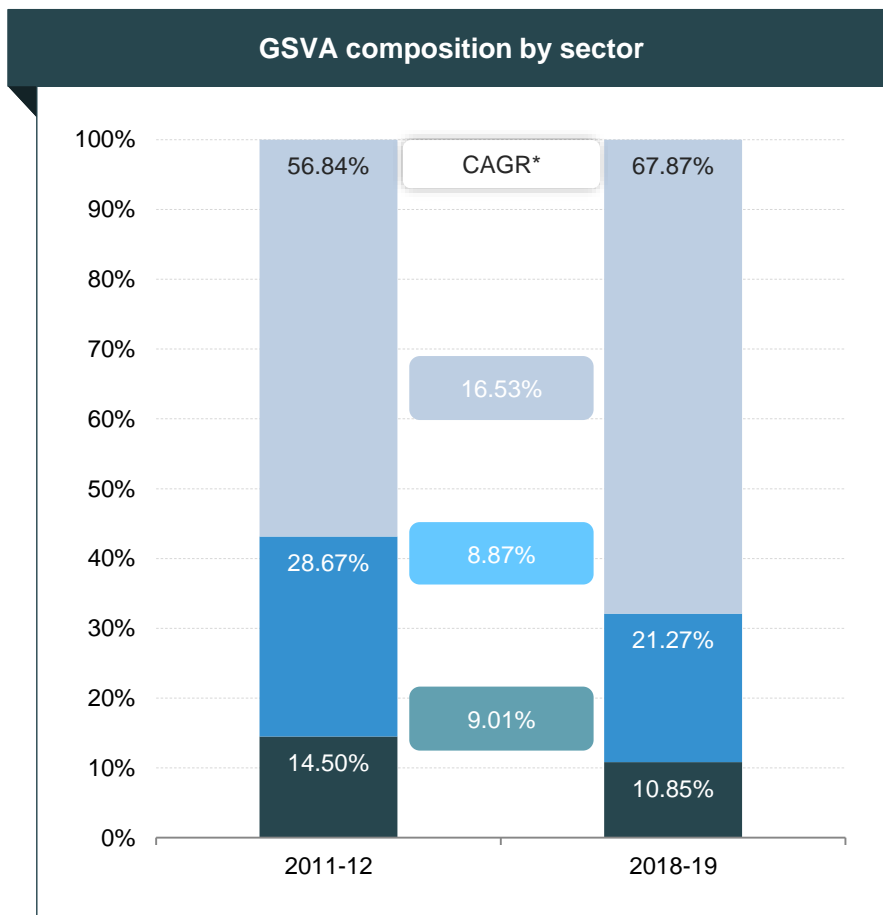
- The state's per capita NSDP in 2018-19 was Rs 207,062 (US\$ 2,962.69).
- The per capita NSDP (in Rs) increased at a CAGR of 12.59 per cent between 2011-12 and 2018-19.

*Note:* Exchange rates used are averages of each year, provided on page 55

*Source:* Directorate of Economics & Statistics of Odisha, Central Statistics Office, TechSci Research Research Sector-wise %share of GSDPμ -Socio Economic Survey 2017-18

# ECONOMIC SNAPSHOT – PERCENTAGE DISTRIBUTION OF GSVA

- In 2018-19, the tertiary sector<sup>1</sup> contributed 67.87 per cent to the state's GSVA at current prices, followed by the secondary sector (21.27 per cent) and the primary sector (10.85 per cent).
- At a CAGR\* of 16.53 per cent, the tertiary sector has been the fastest growing among the three sectors from 2011-12 to 2018-19. The growth has been driven by trade, hotels, real estate, finance, insurance, transport, communications and other services.
- The secondary sector grew at a CAGR\* of 8.87 per cent between 2011-12 and 2018-19. This was driven by manufacturing, construction and electricity, gas & water supply.
- The primary sector grew at a CAGR\* of 9.01 per cent between 2011-12 and 2018-19.

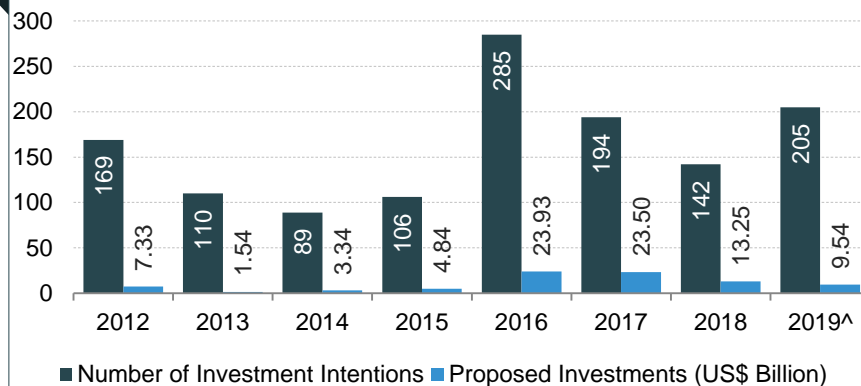


*Note: \*CAGR in Rs term*

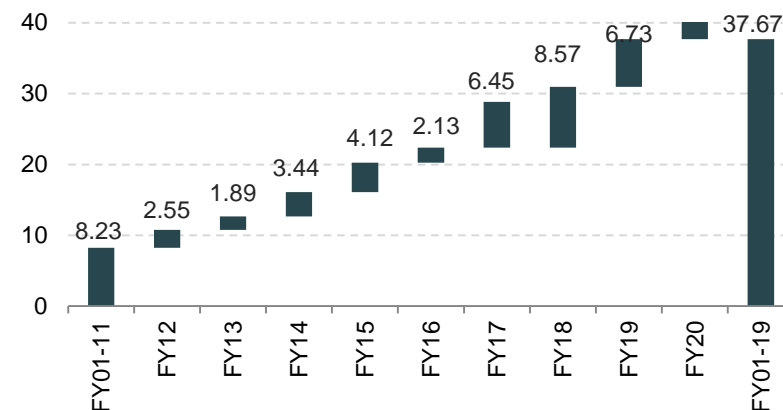
*Source: Directorate of Economics & Statistics of Karnataka, Central Statistics Office, Sector-wise %share of GSDP<sub>μ</sub> -Karnataka Socio Economic Survey 2017-18*

# ECONOMIC SNAPSHOT – FDI INFLOWS & INVESTMENTS

Investment intentions in terms of IEMs filed, LOIs/DILs issued in Karnataka



FDI Inflows to Karnataka (US\$ billion)

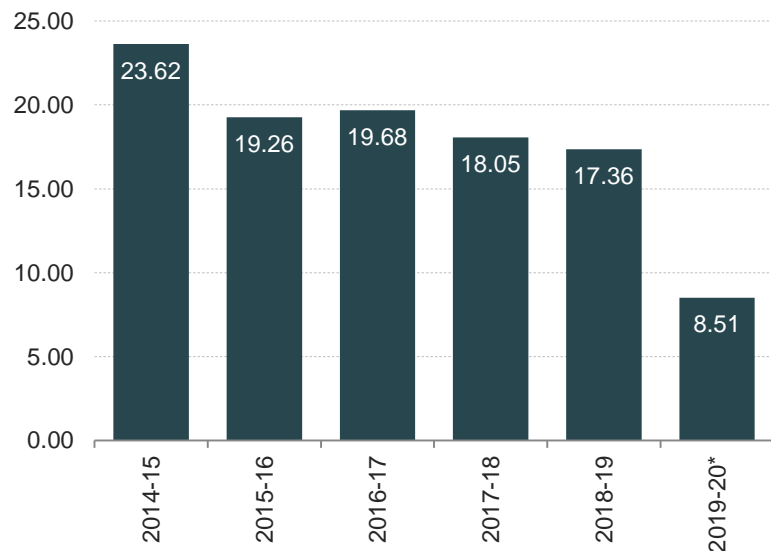


- The state has a stable political environment. Karnataka is ranked fifth in terms of attracting private sector investments in India. According to the Department for Promotion of Industry and Internal Trade (DPIIT), the cumulative FDI inflows from April 2000 to June 2019 were recorded at US\$ 40.68 billion, the third highest in India after Maharashtra and Delhi and accounted for a share of 9.0 per cent in India's cumulative FDI inflows.
- 205 investment intentions worth Rs 61,034 crore (US\$ 9.54 billion) were filed in Karnataka during 2019 (up to October 2019).
- With a private equity & venture capital investment of US\$ 2.51 billion from 280 deals, Karnataka stood at the second position, among all other states.

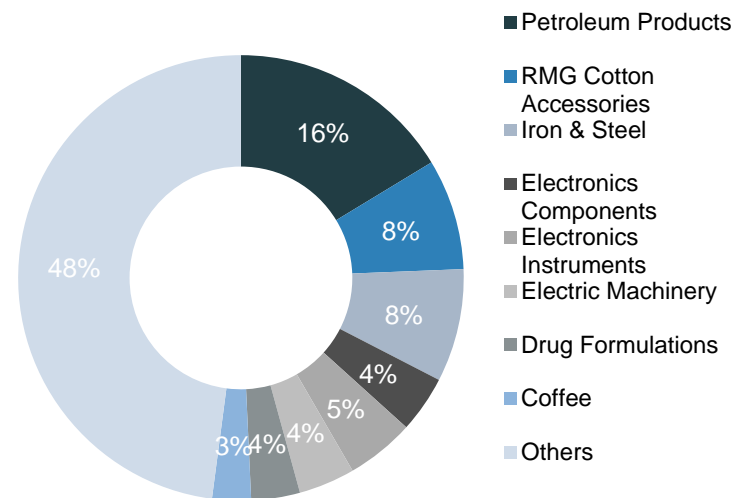
Note: ^- till October 2019

Source: Department for Promotion of Industry and Internal Trade, Directorate of Economics and Statistics, Government of Karnataka

### Merchandise Exports from Karnataka (US\$ billion)



### Principal Commodities Exported in 2019-20\*



- Petroleum products is the largest export item from Karnataka, accounting for nearly 16 per cent of total exports in 2019-20\*, followed by RMG Cotton Accessories (8 per cent) and Iron & Steel (8 per cent).
- Merchandise exports from Karnataka reached US\$ 17.36 billion in 2018-19 and US\$ 8.51 billion in April-September 2019.

*Note: \*- till September 2019*

*Source: Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry*

# PHYSICAL INFRASTRUCTURE







Source: Maps of India

## Road infrastructure in Karnataka (km)

Road type	2019-20
National highways (March 2019)	7,335
State highways**	27,163
Major district roads**	55,515
Municipal roads**	8,366
Rural roads**	177,542

- Karnataka provides efficient public transport to people of different income groups across the state as well as in neighbouring states. The state has a total of 275,158 km of road area. The national highways run for around 7,335 km and the state highways extend as much as 27,163 km.
- Public Works Department (PWD) of the state is using hi-tech vehicles to help in improvement of roads. The vehicles will be used to check the status of 20,000 km of core roads in the state according to the department.
- As per Budget 2018-19, the state government is going to establish eight separate quality control sub-divisions for protecting the quality of management and development of rural roads.

*Note: Road data for 2017-18 is expected to release in Economic Survey 2018-19,\*Total NH length as on January 03, 2019, \*\* 2016-17*

*Source: Ministry of Road Transport & Highways, Government of Karnataka, State Budget, 2018-19*

## Status of Rail projects in Karnataka (2017-18)

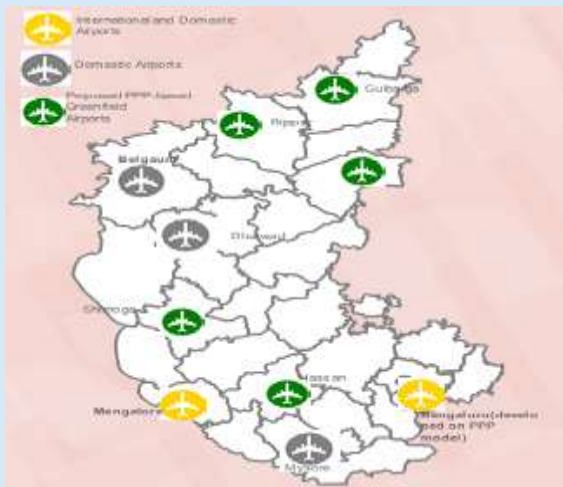
Railway project	Track Length (Km)	Status
Chikkamagalur-Sakaleshpura	46.0	Land acquisition is in progress
Bagalkot-Kudachi	144.0	Under progress
Tumkur-Rayadurga	102.6	Land acquisition is in progress
Gadag-Wadi	252.5	Land acquisition is in progress

## Status of Bangalore Metro Rail projects (2017-18)

Metro Railway project	Track Length (Km)	Status
Phase -1	42.3	Completed on 17.06.2017
Phase -2	72.1	Under progress
Phase -3	-	Under preparation.

- Karnataka is well connected to other parts of the country through the railways. The state has a railway network of 3,250 km.
- As of September 2017, 42.3 km of Karnataka's metro network is operational.
- Commencement of Rail Coach Factory in Kolar district at a cost of Rs1,461 crore(US\$225.67 million) wherein , 50 per cent of the cost along with the land would be contributed by state. An MoU for this project was signed with Ministry of Railways in 2014.
- In the Union Budget 2018-19, the government has approved for the 160km rail network sum of Rs 17,000 crore (US\$ 2.53 billion) for the growth of the Bengaluru metropolis and is expected to be executed by both State and Central government in the 50:50 ratio.

Source: Economic Survey of Karnataka, 2017-18, State Budget 2018-19



## Karnataka airport statistics (2019-20)

Airport	Passenger traffic (No.) (till October 2019)	Aircraft movement (No.) (till October 2019)	Freight (tonnes) (till October 2019)
Bangalore	1,93,06,980	1,34,332	2,26,113
Mangalore	11,04,585	8,985	1,871

- The state has five domestic airports. These are located in Bengaluru, Mangalore, Hubli, Mysore and Belgaum. In March 2017, the government gave 'in principle' approval for construction of an airport at Shimoga.
- International flights operate from the airports at Bengaluru (Kempegowda International Airport), the country's first greenfield international airport, has been developed at Devanahalli in Bengaluru as a passenger and cargo department hub and Mangalore (Mangalore International Airport).
- In December 2019, the New South Parallel Runway (NSPR) at Kempegowda International Airport became operational. This will enable the airport to handle around 35 million passengers per year. The airport became the first in country to operate independent parallel runways, enabling aircraft to land and take off simultaneously on both runways.

Source: Airport Authority of India

- There are 13 ports in Karnataka, of which New Mangalore is a major port. New Mangalore Port is the ninth major port in India with the deepest inner harbour on the west coast.
- The state government has initiated the work on development of Pavinakurve port, under PPP mode, in the district of Uttar Kannada. The draft concessional agreement and pre-feasibility report preparations related to the port are under process.
- The work on development of the second stage of Karwar port has been initiated under the concept of D-BOOST in PPP mode.

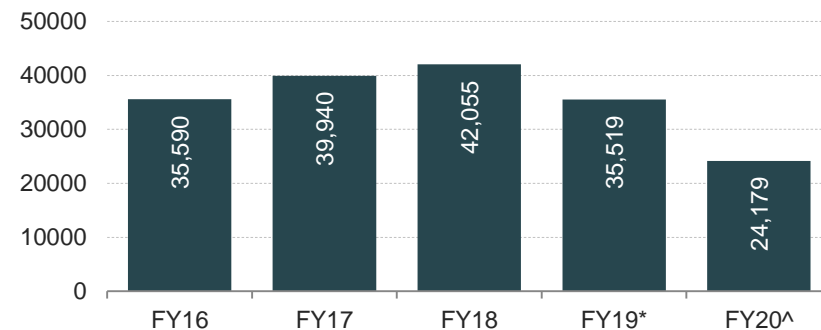
## Ports

Major ports	<ul style="list-style-type: none"> <li>New Mangalore Port</li> </ul>
Minor ports	<ul style="list-style-type: none"> <li>Karwar</li> <li>Belekeri</li> <li>Tadri</li> <li>Honavar</li> <li>Bhatkal</li> <li>Kundapur</li> <li>Hangarkatta</li> <li>Malpe</li> <li>Padubidri</li> <li>Old Mangalore</li> </ul>

Note: ^- till November 2019, \*- Up to January 2019

Source: Indian Port Association

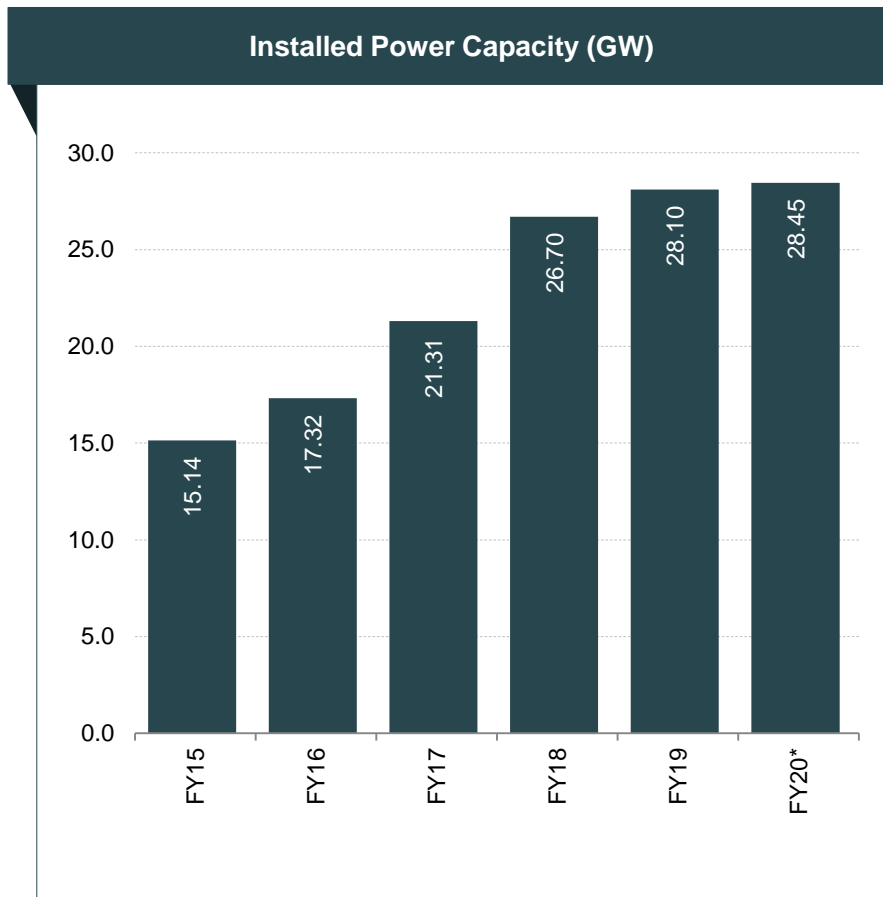
## Cargo handled by New Mangalore port (in '000 tonnes)



## Cargo handled by various minor ports in Karnataka ('000 MT)

Minor Port	2015-16	2016-17	2017-18 (Up to November 2017)
Old Mangalore	98.00	121.67	25.61
Karwar	714.00	582.80	349.35
Malpe, Belekeri, Hangarkatta & Kundapur	3.00	3.05	0.72
<b>Total</b>	<b>815.00</b>	<b>707.52</b>	<b>375.68</b>

- Karnataka was one of the first Indian States to implement power sector reforms. The Karnataka Electricity Regulatory Commission (KERC) was established as a regulatory authority of the State's Power Sector.
- As of November 2019, the state had an installed power generation capacity of 28,452.85 MW. Out of this, central utilities contributed 3,527.20 MW, private utilities contributed 16,125.17 MW and 8,800.49 MW was under state utilities.
- Of the total installed power generation capacity, 9832.90 MW was contributed by thermal power. Capacities of 698.00 MW and 14,335.35 MW were contributed by nuclear & renewable power, respectively, while hydropower contributed 3,586.60 MW.
- As per State Budget 2019-20, Karnataka is expected to spend Rs 25,175 crore (US\$ 3.60 billion) on subsidies, out of which Rs 11,250 crore (US\$ 1.6 billion) is allocated for Power.



*Note: \*-as of November 2019*

*Source: Central Electricity Authority, News Articles*

- Karnataka Renewable Energy Development Limited (KREDL) was established in 1996 to promote the development of renewable energy sources in the state
- Karnataka is endowed with high renewable energy potential such as wind, hydro, solar, tidal & geothermal energy resources. It is now India's top solar photovoltaic (PV) state as it crossed the 5GW mark in the first quarter of 2018.
- By the end of November 2019, the installed capacity for wind energy was recorded to be 4,817.84 MW. Wind energy accounted for 32.64 per cent of the total installed capacity recorded by the end of November 2019.
- The state has a solar energy potential of 10,000 MW. Karnataka Solar Policy 2014-2021 plans to add solar generation of minimum 2,000 MW by 2021. The total capacity installed for solar energy up to January 2019 was recorded to be 5,342.02 MW.

## Progress in Renewable Energy as of November 2019

No	Renewable energy source	Capacity allotted (MW)	Installed capacity (MW)
1	Wind	18,300.97	4,817.84
2	Hydro	3,010.05	903.46
3	Biomass	391.18	134.03
4	Co-generation	2,177.65	1,731.16
5	Solar	9,477.94	7,174.71
6	Municipal Solid Waste	25.50	0.00
	<b>Grand total</b>	<b>33,383.29</b>	<b>14,761.2</b>

Source: KREDL, Central Electricity Authority, Karnataka Renewable Energy Policy

## Telecom Infrastructure (as of September 2019)

Wireless subscribers	69,106,506
Wire-line subscribers	2,148,544
Internet subscribers (As of June 2019)(Mn)	42.25
Teledensity (in %)	110.97

## Performance status of Bharat Net Project (As of December 2018)

No. of GPs in Phase-I	6,092
Cable laid (km)	13,712
GPs for which cable laid	6,202
No of GPs lit (Up to July 2018)	4,835

- Karnataka is the seven largest wireless telecom market in India. The entire state is networked through optical fibre cables (OFCs) of the state-owned company, Bharat Sanchar Nigam Limited (BSNL), as well as private companies such as Bharti, Reliance, VSNL and TATA Tele Services. The state government is planning to provide technology at the gram panchayat level by providing free Wi-Fi to the youth
- According to Telecom Regulatory Authority of India (TRAI), there were 63.10 million wireless subscribers and 2.14 million wire-line subscribers in Karnataka, as of November 2019.
- By the end of September 2019, 42 million subscribers had submitted requests for mobile number portability in Karnataka.

Source: Telecom Regulatory Authority of India, Economic Survey of Karnataka

# PHYSICAL INFRASTRUCTURE : URBAN INFRASTRUCTURE

- Karnataka is among the top ten most urbanised states in India. Seven cities of Karnataka have been selected under the Smart Cities Mission to be developed as smart cities. IT has ten city corporations, 57 city municipal councils, 113 town municipal councils, 90 town panchayats & 4 notified area committees.
- 27 cities from Karnataka were selected under the central government's Atal Mission for Rejuvenation and Urban Transformation Scheme (AMRUT). The Ministry of Housing and Urban Affairs has released an amount of Rs 551.84 crore (US\$ 85.62 million) to the State of Karnataka under.
- The state is projected to reach an urban population proportion of 50 per cent by 2026. Some of the key areas of development are roads and flyovers, water supply, storm-water drainage, sewerage and urban transport. As per budget 2018-19, an amount of US\$ 2.66 billion has been proposed for urban development.
- Under the State Budget 2019-20, government has allocated Rs 166 crore (US\$ 23.75 million) towards the Pradhan Mantri Grameen Sadak Yojak and Rs 1,250 crore (US\$ 178.85 million) towards the Namma Grama Namma Raste Scheme.

*Note: \* Including state share*

*Source: JNNURM, Ministry of Urban Development*

## Fund classification under each component of AMRUT for Karnataka (as on January 2019) (US\$ million)

Total allocation for projects*	Committed Central Assistance	Sanctioned Central Assistance	Central Assistance released since 2015
686.47	321.38	196.80	162.77

Water supply	Sewerage system
<ul style="list-style-type: none"> <li>▪ KUWSDB has implemented surface-based drinking water supply schemes in 187 urban areas to provide assured safe drinking water.</li> <li>▪ KUWSDB is implementing 26 schemes for shifting the source of water from ground water to assured surface water. They are to be completed by 2013.</li> <li>▪ Cauvery Water Supply Scheme (CWSS) Stage IV, Phases I-IV are being implemented to supply 810 MLD of water to about 600,000 connections.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Bengaluru Water Supply and Sewerage Board (BWSSB) is responsible for providing water supply, sewerage system &amp; sewage disposal in the Bengaluru Metropolitan area.</li> <li>▪ 42 urban areas have been provided with Underground Drainage (UGD) facilities in the state.</li> </ul>



# SOCIAL INFRASTRUCTURE



- In terms of the number of universities, Karnataka ranks fifth among all Indian states and union territories, with 65 universities. Of these, 28 are state public universities and 11 are private deemed universities.
- The state has 4,519 pre-university colleges to impart general education. There are more than 1 million students in the pre-university colleges.
- The state has a literacy rate of 75.6 per cent, the male literacy rate is 82.8 per cent and the female literacy rate is 68.1 per cent.
- Under the State Budget 2019-20, government has allocated Rs 241 crore (US\$ 34.4 million) towards Sarva Shiksha and Rs 10,936 crore (US\$ 1.56 billion) to panchayats for development of elementary education.

### Karnataka is home to several premier institutions:

- Indian Statistical Institute.
- Indian Institute of Science.
- Indian Institute of Management.
- National Law School of India University.
- Institute for Social and Economic Change

### Karnataka education statistics (2016-17)

Number of schools	Lower primary: 26,696 Higher primary: 35,498 Secondary schools: 15,773
School dropout rate (in %)	Lower primary: 1.03 Higher primary: 2.30
Pupil-teacher ratio	Average: 23.18:1 Private Aided schools: 55.48:1 Unaided schools: 31.61:1

### Educational infrastructure (2017-18)

Institute type	Number	Enrolments
Medical colleges	53	6,786
Ayurvedic colleges	72	4,675
Homoeopathic colleges	11	950
Unani colleges	5	290
Naturopathy & Yogic Sciences (BNYS)	5	420
Dental colleges	40	2,719
Pharmacy colleges	61	4,784
Nursing colleges	294	17,369

*Note: Latest updates for Education statistics and Educational infrastructure are expected to release in Economic Survey 2018-19.*

*Source: Economic Survey of Karnataka 2017-18 Census 2011*

- Karnataka has made tremendous effort in improving the health status of its people in the last few decades. . The State has made substantial progress in building credible health infrastructure with a wide institutional network providing health services both in urban and rural areas.
- The State has 63 district Hospitals, 555 sub district Hospitals and 31 Autonomous and Teaching Hospitals and 146 Taluk / General Hospitals in the state.
- According to the State Budget 2019-20, Rs 2,067 crore (US\$ 295.75 million) is allocated towards medical education and research.

#### Programmes under AYUSH health care services:

- AYUSH Health camp.
- District and Taluk Seminars / Workshop.
- Home remedy and Ayush awareness.
- Diabetic control programme.
- School health programme.
- AYUSH health expo.

#### Health indicators (2017)

Birth rate	17.4
Death rate	6.5
Infant mortality rate	25
Natural Growth Rate	10.9

#### Life expectancy at birth (years)

Male (2015)	63.6
Female (2015)	67.1

No of institutions	Total Facilities (December 2019)
Sub Centers	9,613
Community Health Centres	321
Primary Health Centres	2,649
Sub District Hospitals	555
District Hospital	63
<b>Total Institutions</b>	<b>13,201</b>

*Source: Economic Survey of Karnataka 2017-18, Ministry of Health & Family Welfare Sample Registration System (SRS) Bulletin Sep, 2014 , <sup>1</sup>Per thousand persons, <sup>2</sup>Per thousand live births.*

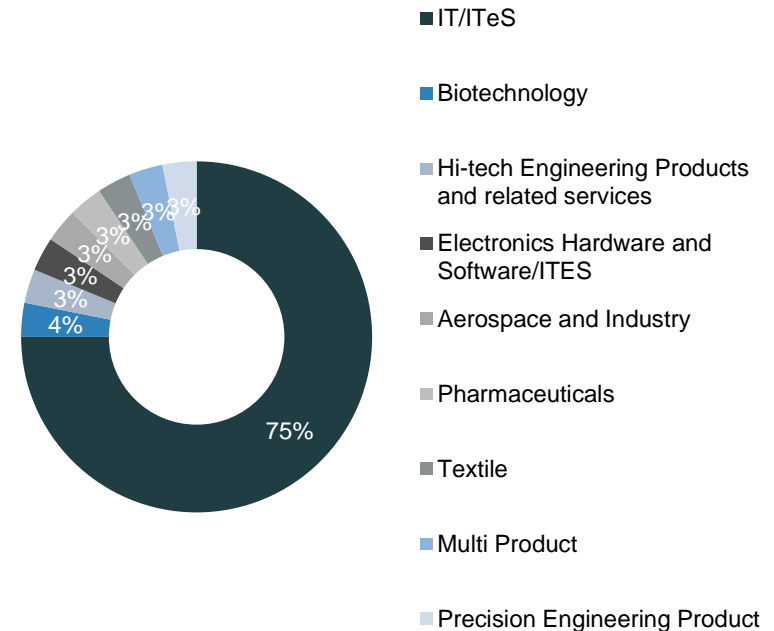
# INDUSTRIAL INFRASTRUCTURE



# INDUSTRIAL INFRASTRUCTURE: SEZs AND INDUSTRIAL ESTATES

- As of November 2019, the state has 32 operational, 51 notified SEZs and 62 formally approved SEZs. The Karnataka Industrial Areas Development Board has developed 141 industrial areas spread across the state. The state plans to develop and upgrade eight clusters around Bengaluru with an investment of US\$ 348.4 million in coming years.
- The Karnataka State Industrial & Infrastructure Development Corporation has promoted more than 135 start-up ventures in the state through equity participation and has provided debt to core industries such as steel, cement, mining and textiles, as well as new sectors such as IT, aerospace and telecom.
- Karnataka is the first in the country to provide bespoke policy ecosystem for automobile sector .The state has introduced a comprehensive and well-designed Electric Vehicle and Energy Storage Policy.

**Sector-wise Operational SEZs In Karnataka (as of November 2019)**



Source : Department of Commerce, Ministry of Commerce & Industry

# KEY SECTORS

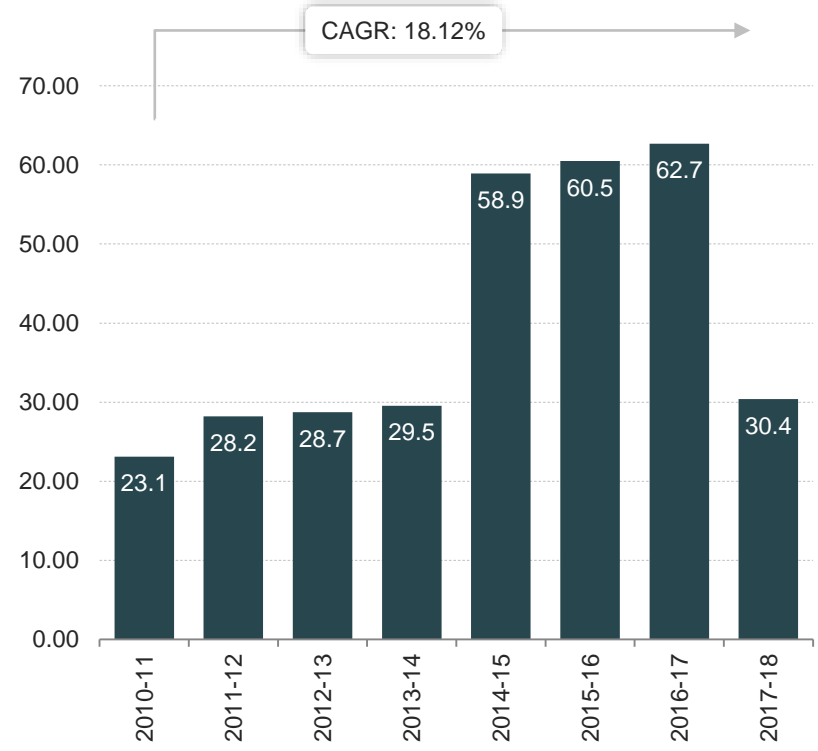
- ❖ IT and ITeS
- ❖ Engineering
- ❖ Automotive and Aerospace
- ❖ Agro and food processing



# KEY SECTOR – IT AND IT-ENABLED SERVICES ... (1/2)

- Karnataka has emerged as an information technology (IT) hub of India. Bengaluru is the fourth largest technological cluster in the world after Silicon Valley, Boston and London.
- About 50 per cent of the world's SEI CMM Level 5 certified companies are located in Bengaluru.
- The state is India's largest software exporter, with electronics and computer software exports totalling to US\$ 30.41 billion during 2017-18 (Up to December 2018).
- Karnataka has 47 IT/ ITeS SEZs and dedicated IT investment regions. There are 3,500 IT companies in the state. The state houses 550,000 IT professionals or 1/3rd of the total IT professionals in the country.

**Electronics and software exports from Karnataka (US\$ billion)(Up to December 2018)**



Source : Visvesvaraya Trade Promotion Centre;\*(April-Sept)



**Wipro Ltd**

- Wipro has presence in areas such as IT services, product engineering, technology infrastructure services, BPO and other consulting solutions. Based in Bengaluru, the company has 72 plus global delivery centres and 50 plus industry-specific centres of excellence in more than 54 countries. In September 2009, the company launched its centre of excellence at its Electronic City campus to work with other leading IT firms for developing innovative IT solutions.



**Infosys Technologies Ltd**

- Infosys Technologies Ltd was set up in 1981. The company operates in areas such as IT consulting, modular global sourcing, process re-engineering and BPO services. The company has 11 operation centers at multiple locations in Bengaluru, Mangalore and Mysore.



**Genpact**

- Genpact was set up in 1997 in India. Formerly known as GE Capital International Services. The company provides a wide range of business process, technology and knowledge services including finance and accounting, collections and customer relations, insurance, procurement and supply chain, analytics, software and IT infrastructure. The company has one office in Bengaluru in Karnataka.

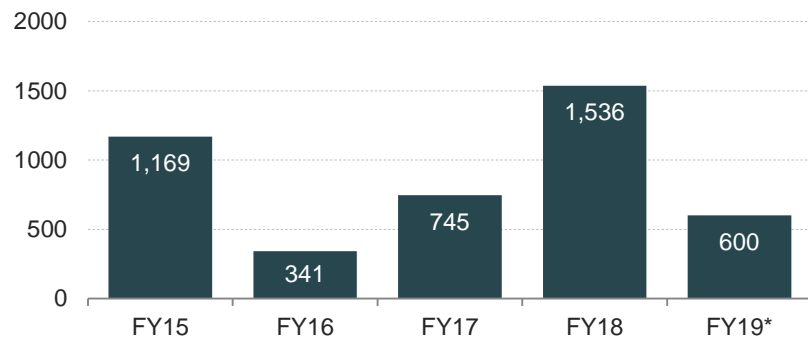


**Accenture**

- Accenture is a global management consulting, technology services and outsourcing company with approximately 275,000 people serving clients in more than 120 countries. In 2016-17, the company has one consulting office and seven delivery centres in Bengaluru.



### Iron & Steel Exports From Karnataka (US\$ million)



### Mineral Production in Karnataka

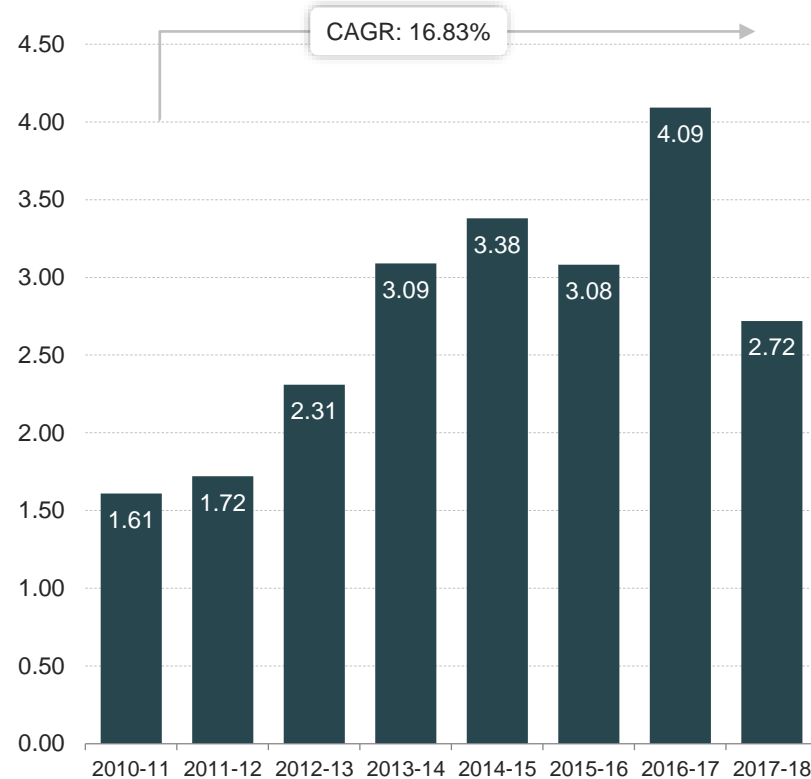
Mineral	2017-18	2018-19 (till Feb' 2019)
Iron Ore (total) ('000 tonnes)	26,761	27,871
Gold (total) (kg)	1,456	1,396
Silver (kg)	154	173
Limestone ('000 tonnes)	27,054	30,995

- Karnataka was the third largest producer of iron ore in India in 2017-18.
- In 2017-18, value of minerals produced (excluding fuel & atomic minerals) increased by 30.66 per cent.
- Total value of all minerals produced (excluding fuel & atomic minerals) was Rs 7,416 crore (US\$ 1.15 billion) in 2017-18
- In 2018-19, the total export value of iron & steel in Karnataka is US\$ 599.81 million and reached US\$ 698.22 during April-September 2019.

Source: Indian Bureau of Mines

- The engineering industry in Karnataka has positive prospects, given its performance.
- The state exported engineering products worth US\$ 2.72 billion in 2017-18 (up to September 2017). The engineering segment is the fastest growing sector of the state, which grew at a CAGR of 16.83 per cent between 2010-11 and 2015-16.
- The state is exporting engineering products to Germany, China, South Korea, Brazil, USA, Malaysia, Thailand, South Africa and Singapore. A majority of the exporters in state are based in Bengaluru, Hubli, Mysore, Belgaum, Mangalore, and Shimoga
- Exports include machine tools, industrial machinery, cutting tools, castings, automotive components, electrodes, welding equipment, construction and earthmoving equipment, and helicopter spares.

**Engineering products exports (US\$ billion)(Up to September 2017.)**



*Note: Economic Survey 2017-18*

*Source: : Visvesvaraya Trade Promotion Centre, Government of Karnataka*



**BEML Limited**

- BEML Limited (formerly Bharat Earth Movers Limited) was established in 1964. BEML manufactures a wide range of earth moving and other heavy industrial equipment for the mining and civil engineering industries.
- BEML has a registered office in Bengaluru and units in Kolar Gold Fields, Mysore and Bengaluru.



**HMT Ltd**

- HMT was established in 1953. The company manufactures various types of machine tools including watches, tractors, printing machinery, metal forming presses, die casting & plastic processing machinery, CNC systems & bearings.



**Saint-Gobain India**

- Saint-Gobain India was established in India in 1996. The group comprises eight manufacturing companies in India for various products ranging from glass to engineering products.
- In the second quarter of 2015, the company recorded revenues of US\$ 6.51 million. The company has a manufacturing plant in Bengaluru.

# KEY SECTOR – AUTOMOTIVE AND AEROSPACE ...

## (1/2)

### Automotive

- Karnataka has a vibrant auto industry with investments of around US\$ 713 million and annual revenues of US\$ 604 million thus aiming to make Karnataka the automobile capital of India.
- The state is the fourth largest state in India in terms of automotive production. The main locations for automobile industries are Bengaluru, Ramanagara, Kolar, Shimoga, Dharwad & Belgaum.
- It is the first state in the country to introduce Electrical Vehicle and Energy Storage policy 2017
- The state has 3 auto clusters, one industrial valve cluster and one auto component cluster. 2 manufacturing hubs are coming up in Narsapur & Vemagal Industrial Areas in Kolar District.

### Aerospace

- Karnataka is known as the pioneer in the Indian aerospace industry after the establishment of Hindustan Aeronautics Limited (HAL) in Bangalore in 1940. Karnataka produces more than a quarter of India's aircrafts and space crafts. The state is exporting aerospace products to US, UK, Germany, Russia Mauritius, Malaysia, Nepal, Oman and Ecuador.
- Karnataka government gives approval for investment of Rs 480 crore (US\$ 68.67 million) to Goodrich Aerospace Service Pvt Ltd to establish a unit in Bengaluru.
- India's first aerospace SEZ of 300 acres is operational at Belgaum. Aerospace Technology Centre (ATC) in Bengaluru would be established under the PPP model.
- It is the first state in the country to introduce a dedicated Aerospace policy (2017-23).Furthermore, it contributes to 67 per cent of country's helicopter and aircraft for Defence Services.

Source: : Economic Survey of Karnataka 2017-18



**Volvo India**

- Volvo India has a state-of-the-art bus manufacturing unit near Bengaluru. Globally, the Volvo Group has about 115,000 employees, production facilities in 19 countries & sales activities in more than 190 countries.
- The Hoskote plant at Bengaluru has an installed production capacity of 1,500 buses per annum .It has strong association with Karnataka.

**DELPHI**

**Delphi Automotive Systems Pvt Ltd**

- Delphi India was incorporated in 1995 as a wholly owned subsidiary of Delphi. The company is a leading global supplier of electronics & technologies for automotive, commercial vehicles and other market segments.
- Delphi India has a technical centre in Bengaluru, which is the largest technical centre outside the US.



**Boeing**

- In India, Boeing is represented through its wholly owned subsidiary, Boeing International Corporation India Private Limited (BICIPL).
- Boeing established its first R&D centre in India – the Boeing Research & Technology Centre – in Bengaluru in 2009. The centre develops high-end technology solutions, particularly in the areas of aero structures and avionics.

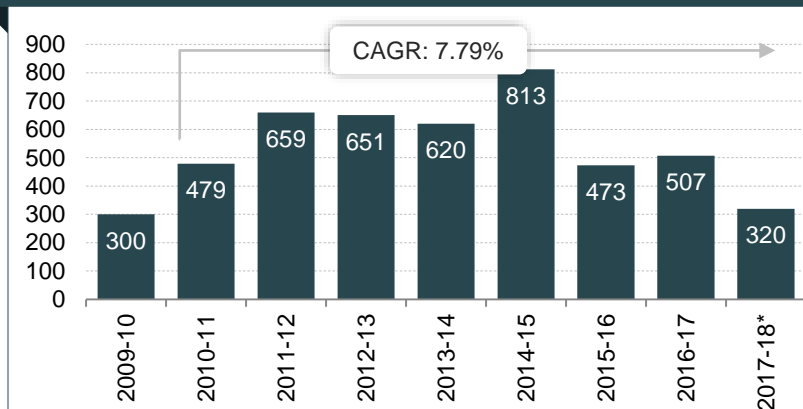


**HAL**

- Hindustan Aeronautics Limited (HAL) is ranked 40th in Flight International's list of the World's Top 100 aerospace companies in 2008.
- HAL has 19 production units and nine research and development centres in seven locations across India; of which, eight production units and four R&D centres are located in Bengaluru.

# KEY SECTOR – AGRO AND FOOD PROCESSING

Coffee exports from Karnataka (US\$ million)



Production of major crops in Karnataka ('000 tonnes)

Crop	2017-18*	2018-19**
Rice	2,807.0	2,665.7
Wheat	199.0	-
Nutri / Coarse Cereals	6,274.0	5,030.7
Pulses	1,855.5	979.5
Total food grains	11,135.5	8,675.9
Total Oilseeds	936.5	648.0
Sugarcane	28,263.0	34,200.0

- Karnataka, with a good agricultural base including various food crops, offers immense scope for the development of food processing industries. Karnataka is the largest producer of coffee & cocoa in the country.
- During 2018-19\*\*, total oilseeds production in the state was 0.65 million tonnes. Production of cereals and pulses in the state is estimated to be 5.03 million tonnes & 0.98 million tonnes, respectively, in 2018-19\*\*.
- In 2017-18, total production of sugarcane in the state was 34.2 million tonnes.
- Karnataka is the first state to go online mandis, which would integrate 150 mandis on a single online platform.

**Note:** #- million bales of 170kgs, \* As per 4th Advance Estimates, \*\* As per 1st Advance Estimates (Kharif only).

**Source:** : Economic Survey of Karnataka 2017-18,

# KEY SECTOR– AGRO AND FOOD PROCESSING ...

## (2/2)



**Hindustan Unilever Ltd**

- Hindustan Unilever Limited (HUL) is India's largest fast-moving consumer goods (FMCG) company, with leadership in home & personal care products and foods & beverages. The company recorded revenues of US\$ 4.2 billion during 2015-16. HUL employs more than 16,000 people nationwide.
- The company has a manufacturing plant and an R&D centre at Bengaluru.



**Nestle India**

- Nestle has been in India for almost a century, with seven production facilities across the country, including one at Nanjangud, Karnataka. The company produces chocolates and confectionaries, prepared dishes and cooking aids, beverages and milk products and nutritional supplements.



**Britannia Industries Ltd**

- Britannia is a leading food processing company in India. The company manufactures food products such as biscuits, cheese and bread. Based in Bengaluru.



**United Breweries Ltd**

- United Breweries Limited (UBL) is a flagship company of the UB Group. The company is also referred to as the beer division of the UB Group and is based in Bengaluru.
- The company has around 2,489 employees and manufactures products primarily under the Kingfisher, London Pilsner and UB Premium Ice brands.

# KEY PROCEDURES & POLICIES





# KEY INVESTMENT PROMOTION OFFICES ... (1/2)

Agency	Description	Contact information
<p>Department of Industries and Commerce (DIC)</p>	<p>Anchor department for development/establishment of industries in Karnataka. Responsible for formulating and implementing industrial policies in the state.</p>	<p>No 49, South Block, Khanija Bhavan Race Course Road Bengaluru - 560 001 Phone: 91-80 2238 9901-08 Fax: 91-80-2238 9909 E-mail: commissioner@karnatakaindustry.gov.in Website: www.karnatakaindustry.gov.in</p>
<p>Karnataka Udyog Mitra (KUM)</p>	<p>Single contact point for investors in the state Considers/forwards proposals to concerned agencies and communicates status to investors. Monitors implementation of approved projects. Single point of contact for information on various aspects including land availability, statutory approvals and coordination.</p>	<p>No 49, South Block, Khanija Bhavan East Entrance, Race Course Road Bengaluru - 560 001 Phone: 91-80-2228 2392/5659, Fax: 91-80-2226 6063 E-mail: md@kumbangalore.com Website: kum.karnatak.gov.in</p>

# KEY INVESTMENT PROMOTION OFFICES ... (2/2)

Agency	Description
District Level Single Window Clearance Committee (DLSWCC)	<ul style="list-style-type: none"> <li>Functions under the chairmanship of respective Deputy Commissioners for industrial projects for investments less than US\$ 0.65 million.</li> </ul>
State Level Single Window Clearance Committee (SLSWCC)	<ul style="list-style-type: none"> <li>Functions under the chairmanship of Minister for Large and Medium Industries for investments that range between US\$ 0.65–10.9 million.</li> </ul>
State High Level Clearance Committee (SHLCC)	<ul style="list-style-type: none"> <li>Functions under the chairmanship of the Chief Minister for projects involving investment of more than US\$ 10.9 million.</li> </ul>
District Industries Centres	<ul style="list-style-type: none"> <li>Nodal agencies for approval of projects at the district level.</li> <li>Primary focus is to promote small scale, village and cottage industries.</li> </ul>
Other departments	<ul style="list-style-type: none"> <li>Various sector specific departments such as Department of Tourism, Department of Information Technology and Biotechnology, Department of Food Processing, Department of Textiles and Department of Mines and Geology.</li> </ul>

# KEY APPROVALS REQUIRED ... (1/2)

List of approvals and clearances required	Departments to be consulted
Prior to setting up the unit	
Registration	Department of Industries and Commerce Department, Karnataka Udyog Mitra (Single Window Agency)
Allotment of land/shed	Karnataka Industrial Areas Development Board
Permission for land use	State Department of Industries, Department of Town and Country Planning
Site environmental approval	State Pollution Control Board and Ministry of Environment and Forests
No objection certificate under Water and Air Act	Karnataka State Pollution Control Board
Approval for construction activity and building plan	Development Authority/Urban Local Body
Sanction of power	State Electricity Board
No objection certificate	Fire Department and Directorate of Factories and Boilers
Provisional trade tax registrations	Central and State Excise Departments
Registration under Central Sales Tax Act	Central and State Excise Departments

## KEY APPROVALS REQUIRED ... (2/2)

List of approvals and clearances required	Departments to be consulted
Before commencement of production	
No objection certificate under Water and Air Act	State Pollution Control Board
No objection certificate	Fire Department and Directorate of Factories and Boiler
Permanent Trade Tax registration	Central and State Excise Departments
Registration under Central Sales Tax Act, 1956	Central and State Excise Departments
After commencement of production/activity	
Registration	Department of Industries and Commerce and respective sector departments such as IT/BT/Tourism etc.

# COST OF DOING BUSINESS IN KARNATAKA

Cost parameter	Cost estimate
Industrial land (US\$ per hectare)	129,191.51
Power cost (US cents per kWh)	Metropolitan area: 12.13 Non metro area: 8.7
Labour (US\$/man year)	1,522
Occupation costs (US\$/sq ft/year)	16.44
Employee cost (US\$/ man year)	
Software developers	6,383
Team leads	14,893
Architects	21,276.5
Project managers	31,915

- Electronic Systems Design and Manufacturing (ESDM) is the fastest growing segment of the Information and Communications Technology (ICT) sector.
- According to Ministry of Electronics and Information Technology (MeitY), ESDM to be a part of national IT policy to encourage state to come up with more productive policy which could attract more private investment in ESDM sector.
- As per the National Electronics Policy – 2012 (NEP-2012), ESDM is expected to grow to US\$ 400 billion by the year 2020 and will generate a total employment of over 28 million.
- The objective of the Karnataka ESDM Policy is to facilitate, promote and develop the “ESDM” sector in the State of Karnataka and make Karnataka a preferred destination for investment in Telecommunications, Defense, Medical, Industrial, Automotive, Consumer Products, applications and components, parts, and accessories required for the aforesaid products and applications. The following targets are set for Karnataka ESDM Policy:
  - Emerge as the leading contributor to India's ESDM sector by accounting for at least 10 per cent of the US\$ 400 billion by 2020
  - Generate over 20 per cent of the country's total ESDM exports target of US\$ \$80 billion by 2020.
  - Develop core competencies in specific ESDM verticals such as telecom, defence electronics, avionics and energy.
  - Make Karnataka the country's preferred destination for investments in ESDM.
  - Generate at least 240,000 new jobs, 25 per cent of India's PhDs and 5000 patent filings in ESDM sector in Karnataka by 2020.

- A Karnataka Startup Cell has been set up to address the needs and demands of the rapidly expanding Startup Community and promote Karnataka's Startup Ecosystem.
- Following are the highlights of the startup policy:
  - Capacity Building through New Age Incubation Network
  - Technology Based Incubators: Fostering links between R&D and Commercialization of Technologies.
  - IDEA2PoC Fund: Taking ideas to Proof of Concept.
  - Startup Fund of Funds.
  - Incentives and Concessions: VAT/CST and ST, Patent and Marketing Reimbursements
  - 'Elevate 100' scheme to identify 100 innovative start-ups and support them till the next level of success.
  - Capacity Building Through Exposure Visits and Workshops
  - Creating incubation infrastructure through PPP

## Objectives

### NRI Policy 2017

- The policy was introduced in January 2017, to attract investments from non-resident Kannadigas. The policy aims at helping improve the privileges and speedy services to NRKs, through a card.

[Read more](#)

### Karnataka State Electric Vehicle and Energy Storage Policy 2017

- To make Karnataka a preferred investment destination for manufacturing of electric vehicles, promote a conducive manufacturing ecosystem in the industry and develop human capital required by the industry.

[Read more](#)

### Karnataka Start-up Policy 2015-20

- To encourage the growth of 20,000 technology based start-ups in the state by 2020.
- To enable the establishment of around 25 innovative technology solutions in the state.
- To create around 0.6 million direct as well as 1.2 million indirect employment opportunities in technology sector.

[Read more](#)

### Karnataka Tourism Policy 2015-20

- To boost private investments across the tourism sector.
- To develop Karnataka as a dynamic, sustainable and most-favoured tourism destination by increasing domestic & international visitations, offering high quality experience to visitors, facilitating and accelerating investments and improving livelihood opportunities at the local level.

[Read more](#)



## Objectives

### AVGC Policy 2017-22

- Encourage and support appropriate manpower development, infrastructure development and business development in the AVGC sector.

[Read more](#)

### Solar Policy 2014-21

- To add solar generation of at least 2,000 MW by 2021 in a phased manner.
- To encourage PPP model and R&D and innovation in the sector.
- To promote Roof Top Generation and Technologies.
- To transform Karnataka into an investor friendly state.

[Read more](#)

### Karnataka Industrial Policy 2014-19

- To make Karnataka the most preferred investment destination through inclusive, sustainable and balanced growth.

[Read more](#)

### ESDM Policy 2013

- To facilitate, promote and develop the ESDM sector in Karnataka and make Karnataka a preferred destination for investment in this sector.

[Read more](#)

## Objectives

### Aerospace Policy 2013-23

- To position Karnataka as a vibrant aerospace hub of Asia and a globally recognized aerospace destination by enabling the environment for holistic and sustained growth of the aerospace sector.
- Increase the contribution of the aerospace sector towards enhancing the share of industry in the state's GSDP from 28.0 per cent to 32.0 per cent by 2022.

[Read more](#)

### Integrated Agribusiness Development Policy 2011

- To position Karnataka on a sustained growth path in the field of agricultural and allied sectors through global technologies and innovative tools by creating enabling frameworks and state-of-the-art infrastructure facilities, thereby generating higher returns for farming communities.

[Read more](#)

### Information and Communication Technology Policy 2011

- To maintain Karnataka's leadership in outsourced IT services.
- To retain Karnataka's position as the state with the largest skilled workforce in India for IT services, products and R&D.
- To enable Karnataka to be the most preferred destination for MSMEs (micro, small and medium enterprises).

[Read more](#)

### Renewable Energy Policy 2009-14

- Development, propagation and promotion of renewable energy resources and technologies.
- Creation of a suitable environment for private sector participation in renewable energy power generation.

[Read more](#)

## Objectives

State Policy for Special Economic Zones 2009

- To facilitate and expedite establishment of SEZs, at the same time safeguarding the environment and the interests of land owners.

[Read more](#)

Millennium Biotech Policy II 2009

- To increase the quality of human resources by supporting education and research institutions like the Institute of Agri-Biotechnology (IABT), the Institute of Bioinformatics and Applied Biotechnology (IBAB), the Centre for Human Genetics (CHG) and BT finishing schools; to create specific infrastructure such as focused biotech parks in the areas of agriculture, marine biotech and animal husbandry; to provide specific fiscal incentives.

[Read more](#)

Karnataka Mineral Policy 2008

- To optimise the state's geological potential by scientific and detailed prospecting. State-of-the-art techniques will be encouraged by combining the resources of the private and public sectors.
- To resolutely pursue the policy of preserving flora, fauna, and bio-diversity and ensure that the invaluable forest wealth is safeguarded while granting mineral concessions. To promote transparency in granting mining concessions. The applicants who propose establishment of industries for value addition within the vicinity of the mineral bearing areas will be given priority.
- Government will explore the possibility of notifying mineral bearing areas to avoid clash of interest between mineral exploitation and other development activities.

[Read more](#)

Infrastructure Policy 2007

- To provide a fair and transparent policy framework for facilitating economic growth and encouraging Public-Private Partnerships (PPP) in infrastructure.

[Read more](#)

# ANNEXURE



# ANNEXURE...(1/2) - SOURCES

Data	Sources
GSDP (state)	Economic Survey 2018-19 (Karnataka)
Per capita GSDP figures	Economic Survey 2018-19 (Karnataka)
GSDP (India)	Economic Survey 2018-19 (India)
Installed power capacity (MW)	Central Electricity Authority, as of July 2019
Wireless subscribers (No)	Telecom Regulatory Authority of India, as of June 2019
Internet subscribers (Mn)	Telecom Regulatory Authority of India, as of March 2019
National highway length (km)	NHAI, Roads and Building Department-Government of India
Major and minor ports (No)	India Ports Association
Airports (No)	Airports Authority of India
Literacy rate (%)	Economic Survey 2018-19 (Karnataka)
Birth rate (per 1,000 population)	Economic Survey 2018-19 (Karnataka)
Cumulative FDI equity inflows (US\$ billion)	Department for Promotion of Industry and Internal Trade, April 2000 to June 2019
Operational PPP projects (No)	DEA , Ministry of Finance, Government of India
Operational SEZs (No)	Notified as of May 2019, Ministry of Commerce & Industry, Department of Commerce

# ANNEXURE...(2/2) - EXCHANGE RATES

## Exchange Rates (Fiscal Year)

Year INR	INR Equivalent of one US\$
2004-05	44.95
2005-06	44.28
2006-07	45.29
2007-08	40.24
2008-09	45.91
2009-10	47.42
2010-11	45.58
2011-12	47.95
2012-13	54.45
2013-14	60.50
2014-15	61.15
2015-16	65.46
2016-17	67.09
2017-18	64.45
2018-19	69.89

## Exchange Rates (Calendar Year)

Year	INR Equivalent of one US\$
2006	45.33
2007	41.29
2008	43.42
2009	48.35
2010	45.74
2011	46.67
2012	53.49
2013	58.63
2014	61.03
2015	64.15
2016	67.21
2017	65.12
2018	68.36
2019	69.89

Source: Reserve Bank of India, Average for the year

# DISCLAIMER

India Brand Equity Foundation (IBEF) engaged TechSci Research to prepare this presentation and the same has been prepared by TechSci Research in consultation with IBEF.

All rights reserved. All copyright in this presentation and related works is solely and exclusively owned by IBEF. The same may not be reproduced, wholly or in part in any material form (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this presentation), modified or in any manner communicated to any third party except with the written approval of IBEF.

This presentation is for information purposes only. While due care has been taken during the compilation of this presentation to ensure that the information is accurate to the best of TechSci Research and IBEF's knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice.

TechSci Research and IBEF neither recommend nor endorse any specific products or services that may have been mentioned in this presentation and nor do they assume any liability or responsibility for the outcome of decisions taken as a result of any reliance placed on this presentation.

Neither TechSci Research nor IBEF shall be liable for any direct or indirect damages that may arise due to any act or omission on the part of the user due to any reliance placed or guidance taken from any portion of this presentation.