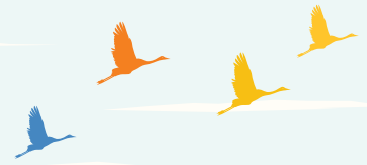**TRIVANDRUM MANAGEMENT ASSOCIATION**

(Affiliated to All India Management Association, New Delhi)

Thiruvananthapuram Vision 2025

A snapshot of city's vision development journey

Foreword

Cities are lively, complex and dynamic places which are always subject to physical, social, economic and even cultural and political transformations with the passing of time. City Development Vision is a tool into which collaborative techniques are incorporated and employed with the aim of providing a sustainable urban development through social capability building to develop a collaborative vision together with a collective action.

Change is an inevitable part of growth, and better when it fosters good growth. Thiruvananthapuram or Trivandrum, the capital city of God's Own Country, Kerala, has grown manifold in terms of its economy and population. Known for its tourist attractions and high-quality infrastructure, it is also the hub for IT parks and talented human capital, augmented by the presence of several premier educational and research institutions.

To further augment the city's growth and development, it has become imperative to develop a vision towards making Thiruvananthapuram a sustainably developed city with efficient human capital and world-class infrastructure along with improved liveability. A root cause analysis and coordinated efforts from all the stakeholders of the city could help identify and solidify the various pillars of the vision development process. Along with the efforts of

a dedicated council through effective planning and implementation, citizen participation and co-operation, is equally paramount in this process of city-building.

Trivandrum Management Association (TMA) along with Shri. G Vijaya Raghavan's Nammude Thiruvananthapuram Survey for Top 25 projects has embarked on a journey for creating a vision for Thiruvananthapuram 2025 making the City 'A Great Place to Live In and Work From'. The Trivandrum development Initiative has come up with multiple projects based on the suggestion of around 6000 members who are part of "Thiruvananthapuram Development Initiative" group and, individual inputs by members and from other groups working for the development of Thiruvananthapuram. This publication is an attempt to analyse and provide an as-is assessment of the capital city; it also elaborates the vision for the city, mainly around the five key pillars i.e. Sustainable Development, Human Capital, Seamless Connectivity, World Class Infrastructure and Improved Liveability. This Vision Document also highlights the implementation framework that could be leveraged to for a holistic development of the city. TMA also thanks KPMG in India for their contribution to this report.
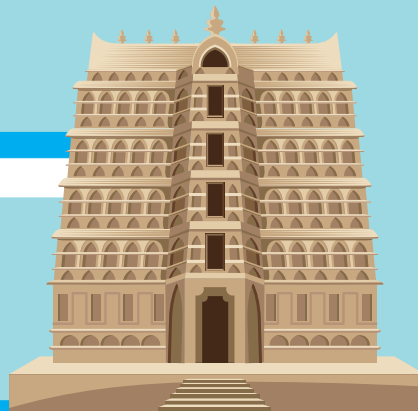
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Thiruvananthapuram:

City snapshot

Thiruvananthapuram, the capital city of Kerala is one of the most popular tourist destinations in Kerala. The capital city owns a unique model of connecting academics, R&D institutions, startups and so on. One can boast of the large number of educational institutions in all fields; be it schools, colleges, engineering or medical colleges. Not far behind in terms of infrastructure, the city proudly enjoys good connectivity via airways, roadways, railways and waterways.

1. Awards and accolades - What makes Thiruvananthapuram unique?

The capital city is unique in its own multiple dimensions. Some of the unique features of the city are as given in the below image:

What is unique about Thiruvananthapuram?

Strengths

- Major IT hub in India
- Natural habitat and rich cultural heritage
- Ranked best in terms of best quality of life
- Ranked as best governed city in India

Opportunities

- Prospects for strengthening of tourism economy
- Upcoming metro-rail projects and trans-shipment terminal
- Electronics manufacturing- based economic development

Source: Thiruvananthapuram City Profile, Smart City Thiruvananthapuram Limited, https://www.smartcitytvm.in/know-thiruvananthapuram/, accessed on February 2021

The numerous recognitions received by the capital city are as given below:

Thiruvananthapuram Corporation has been awarded as one of the zero-waste cities at International Zero Waste Cities Conference, 2019

Thiruvananthapuram Corporation has won the Mahanagarapalika award for best corporation in 2018

Thiruvananthapuram District Panchayat bagged the Deen Dayal Upadhyay Panchayat Sashaktikaran Puraskar, 2018, for the best district panchayat in the state.

Best second tier metro with IT/ITeS infrastructure & second in terms of availability of human talent

Listed among top 10 cities in India on Vibrancy and Consumption Index by Morgan Stanley

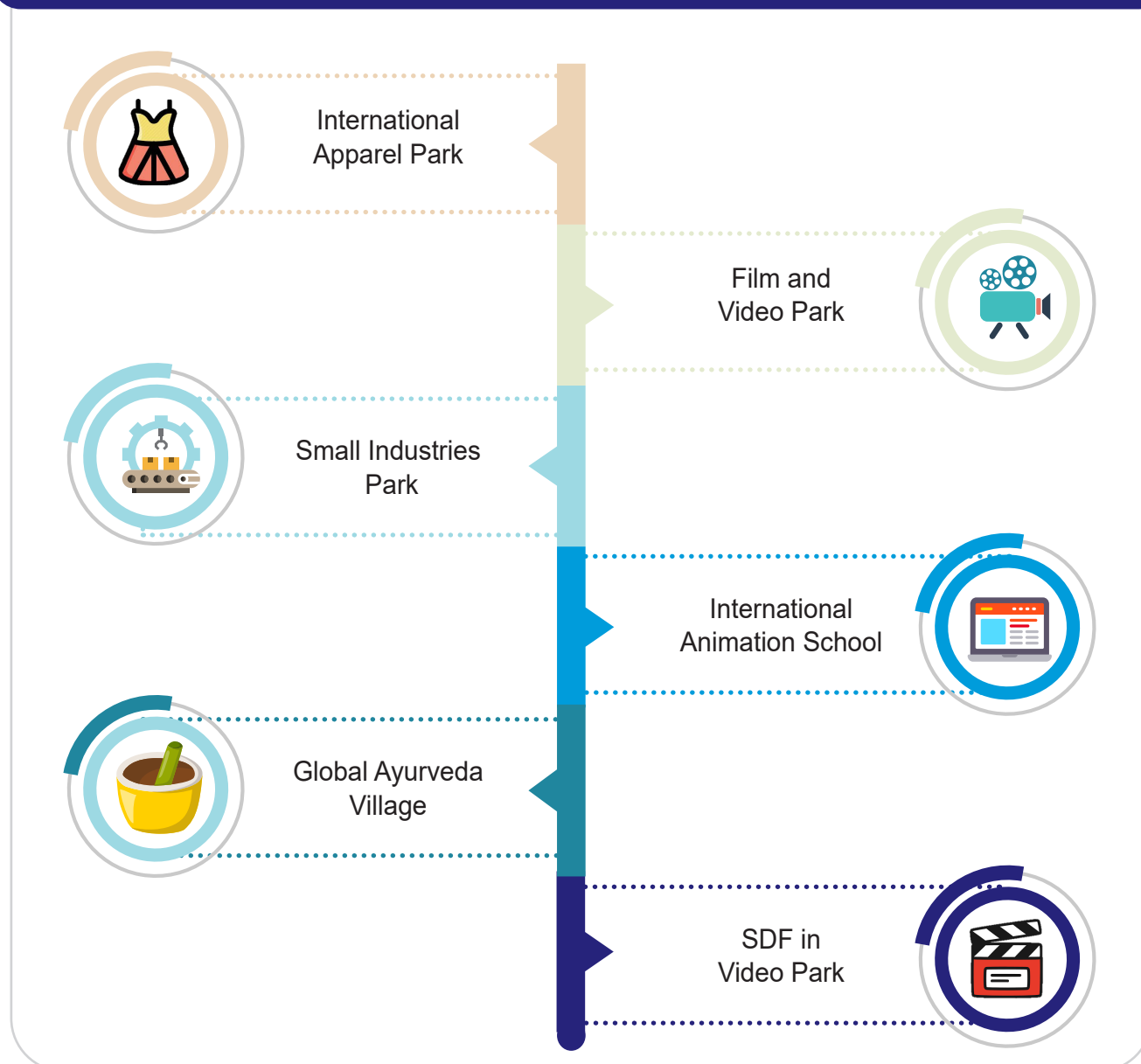Trivandrum ranks first in the Annual Survey of India's City-System 2017 conducted by Janaagraha.

1. Thiruvananthapuram corporation receives Zero waste City award in Malaysia, Business Standard, accessed on October 2019, https://www.business-standard.com/article/news-ani/thiruvananthapuram-corporation-receives-zero-waste-city-award-in-malaysia-119101501242_1.html#:~:text=Kerala's%20capital%20city%2C%20Thiruvananthapuram%20corporation,in%20Malaysia%20on%20October%2014.&text=International%20zero%2Dwaste%20cities%20is,cities%20across%20Pacific%20Asian%20countries.

2. TVM corp wins best corporation award, The Times of India, accessed on January 2018, https://timesofindia.indiatimes.com/city/thiruvananthapuram/tvm-corp-wins-best-corporation-award/articleshow/62583081.cms.

3. T'puram district panchayat among the best in the country, The Times of India, accessed on September 2019, http://timesofindia.indiatimes.com/articleshow/71192051.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

4. Thiruvananthapuram City Profile, Smart City Thiruvananthapuram Limited, https://www.smartcitytvm.in/know-thiruvananthapuram/, accessed on 04-02-2021.

2. Industry landscape

Thiruvananthapuram's economy comprises Information Technology (IT), education, plantations, aerospace, commerce and tourism. Thiruvananthapuram district contributes around 10.31 percent to the state's GDP. Thiruvananthapuram is one of the fastest-growing districts in Kerala, with an economic growth rate of 9.3 percent. Gross State Value Added (GSVA) at current prices of the capital city for the year 2018-19 stood at INR75,01,243.

The capital city is developing its industrial infrastructure to attract investments on a large scale and aims to become one of the top providers of an enabling industrial ecosystem. The infrastructure facilities offered in the city include industrial parks, industrial estates, development areas/plots, export promotion zones and special economic zones. The major industrial parks of Thiruvananthapuram are as listed below:

Industrial Parks in Thiruvananthapuram

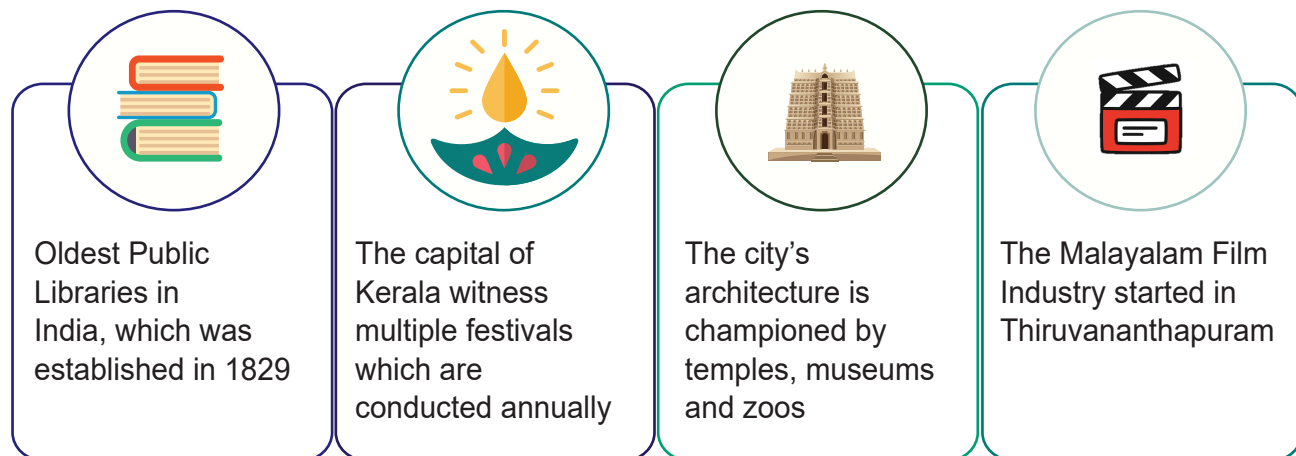International Apparel Park

Film and Video Park

Small Industries Park

International Animation School

Global Ayurveda Village

SDF in Video Park

Source: Industrial Parks, Official We Portal, Government of Kerala, https://kerala.gov.in/industrial-areas

3. Cultural capital

Thiruvananthapuram has historically been a cultural hub in South India due to the development of arts and architecture. The city is famous for holding a unique cultural and heritage value.
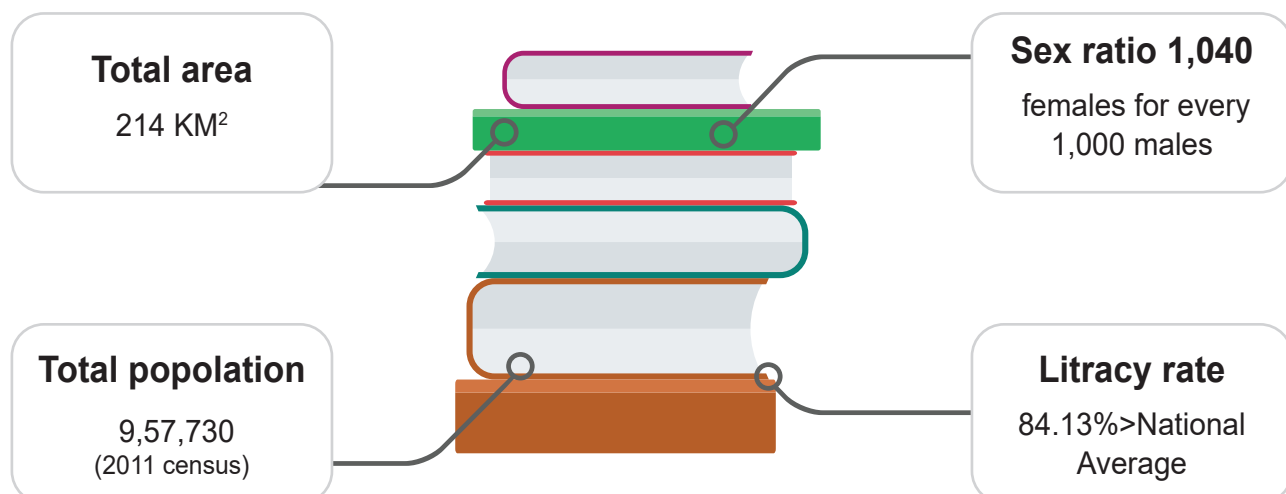
Oldest Public Libraries in India, which was established in 1829	The capital of Kerala witness multiple festivals which are conducted annually	The city's architecture is championed by temples, museums and zoos	The Malayalam Film Industry started in Thiruvananthapuram

Source: Culture of Thiruvananthapuram, New World Encyclopaedia, https://www.newworldencyclopedia.org/entry/Culture_of_Thiruvananthapuram

Kerala is set to get a film city on the lines of Hyderabad's Ramoji Rao Film City, with new theatres and a permanent venue for the International Film Festival of Kerala (IFFK) with a total investment of INR500 crore to boost the Kerala film industry. The capital city of Kerala hosts The International Film Festival of Kerala (IFFK) which is a film festival held annually. The city supports the film industry with high quality infrastructure. The city houses the premier Chitranjali Studio of the Kerala State Film Development Corporation (KSFDC) and the KINFRA Film and Video Park.

4. Social and human capital

The capital city is one of the populous cities of Kerala with a literacy rate above the national average of 77.7 percent[1]

Total area
214 KM[2]

Sex ratio 1,040
females for every 1,000 males

Total popolation
9,57,730
(2011 census)

Litracy rate
84.13%>National Average

1. International Literacy Day 2020: Kerala most literate state in India, check rank-wise list, Hindustan Times https://www.hindustantimes.com/education/international-literacy-day-2020-kerala-most-literate-state-in-india-check-rank-wise-list/story

2. Sources: 1. Thiruvananthapuram City Profile, Smart City Thiruvananthapuram Limited, https://www.smartcitytvm.in/know-thiruvananthapuram/, accessed on 04-02-2021, 2. City Profile, Thiruvananthapuram Municipal Corporation, Kudumbashree, https://www.kudumbashree.org/sub-district/8881001/20, accessed on February 2021

Thiruvananthapuram remains a major academic hub in South India, providing a large 'knowledge workforce'. A majority of the highly qualified IT professionals in Kerala come from Thiruvananthapuram.

IT hub	Large employment base	Startup ecosystem support
Technopark, KINFRA IT SEZ, C-DAC, Technocity	Within Kerala, concentration of job seekers is concentrated towards the south.	KSUM, Makers Village, Technopark business incubator (TBI), TREST
Major educational hub in South India	**Best-in-class research base**	**Industry infrastructure**
University of Kerala, College of Engineering, IISER, NIIST, Indian Institute of Molecular Sciences. Over a dozen world class institutions of higher educationand R&D.	Regional Cancer Centre, National Institute of Interdisciplinary Science and Technology, ICT Academy of Kerala, VSSC, Tropical Botanical Research, Regional Research Laboratory, LPSC-ISRO, IIST, etc.	Trivandrum and Kochi remain at the forefront in the development of industrial infrastructure. First CMMI level 4 quality certification and world-class IT campus is in Trivandrum.

1. Why Invest in Kerala, ASCEND Kerala 2020, https://www.ascendkerala2020.com/why-invest-in-kerala.

2. Thiruvananthapuram: One of the South's Hottest IT Hubs, The DQ Week, accessed on April 2015, https://www.dqweek.com/thiruvananthapuram-one-of-the-souths-hottest-it-hubs/.

3. List of colleges in Trivandrum, StudyGuideIndia, http://www.studyguideindia.com/Colleges/default.asp?ct=142

5. Infrastructure connectivity

The city has a well-connected network and is accessible via road, rail, air and sea. The connectivity of the capital city is given in the below image:

Road
- National Highway 66
- State Highway 2
- State Highway 45

Sea
- Vizhinjam Seaport

Air
- Thiruvananthapuram International Airport

Rail
- Thiruvananthapuram Central
- Thiruvananthapuram Pettah
- Nemom Station
- Veli Station
- Kazhakuttom Station

Source: Thiruvananthapuram, Government of Kerala Website, https://trivandrum.nic.in/.
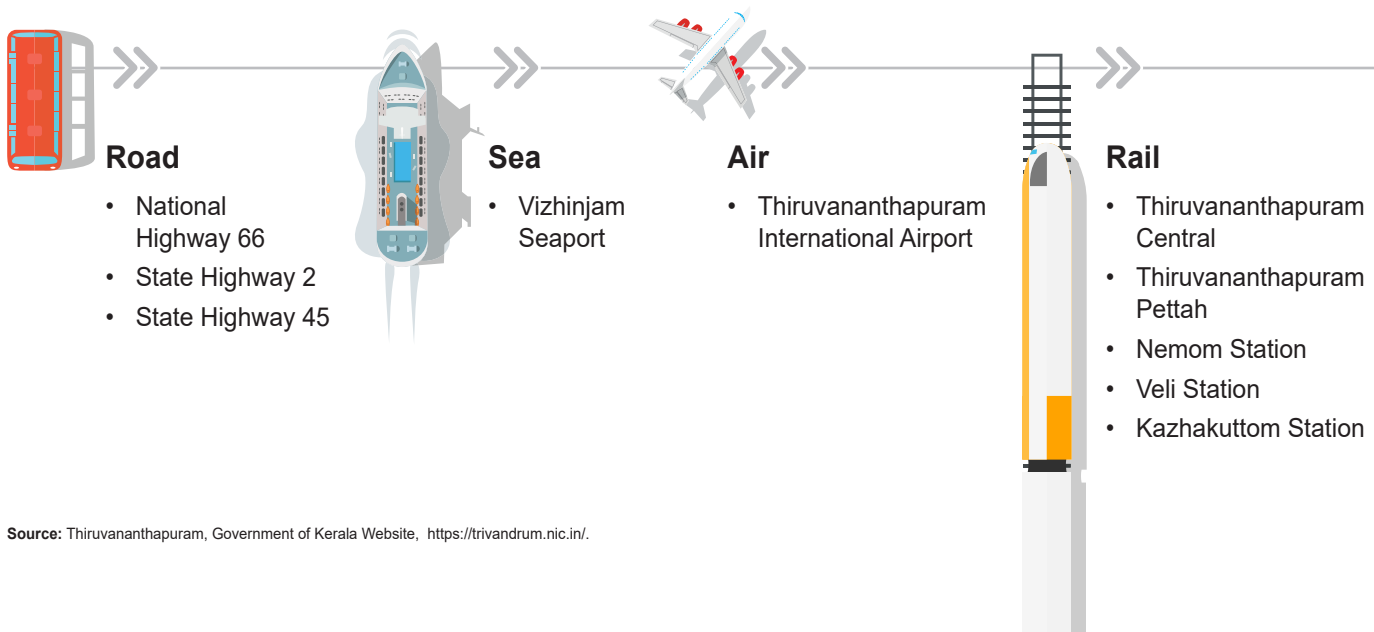
6. Focus sectors

The dominant sectors of the capital city are tourism, IT and education. Other important sectors include agro and food processing, healthcare etc. The below image gives highlights of the focus sectors of the capital city.

The city houses Industrial Parks which mainly focuses on Agro and Food Processing. This sector is supported by a strong agrarian economy. The city is also home for various business units which solely focuses on Food Processing

The city houses multi-speciality hospitals and other healthcare facilities. Apart from mesmerizing the international tourists and local holidaymakers with the awe-inspiring natural splendour found abundant in the region, the city of Thiruvananthapuram also attracts travellers across the borders to arrive at this destination for exploring the healthcare facilities available in the town.

Healthcare and Ayurveda

The city contributes around 55 percent to Kerala's total software exports. It houses major multinational Technology companies like UST Global, Oracle Corporation, Allianz Technology, Tata Consultancy Services, Infosys etc. Major portion of highly qualified IT professionals in Kerala comes from Thiruvananthapuram.

IT and ITeS

The presence of natural attractions like beaches, hills, backwaters and attractions like heritage, history, Ayurveda, medical tourism and knowledge centres attract many tourists to the capital of Gods' own Country

Tourism and Hospitality

Thiruvananthapuram remains a major academic hub in South India, providing a large 'knowledge workforce'. The city houses major educational and research hub in the diverse fields. The city is home for premier engineering , medical , legal and arts colleges and other prominent research institutes.

Education and Research

Source: About District, Government of Kerala, https://trivandrum.nic.in/about-district/, accessed on February 2021

Thiruvananthapuram, the capital city of the most literate and one of the most comprehensively developed states in India, is one of the rare places where modern amenities, cultural heritage and natural splendour meet and complement each other. The city is boasts of some of the most modern facilities in terms of hotels, schools, sports arenas and infrastructure. One of the other most attractive aspects of Thiruvananthapuram, is its infrastructure. The roads and transportation are really efficient. Hence the capital still has a huge potential or avenues to grow and be a model city to the rest of the Indian cities.

02

Thiruvananthapuram's Vision landscape:

Make Thiruvananthapuram the most preferred city for Work, Life and Leisure
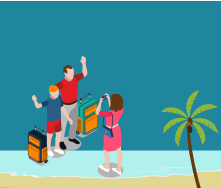
The main purpose behind developing this Vision document for Thiruvananthapuram is to moot a development agenda for facilitating its transition into the most preferred city for livelihood, life, and leisure for all communities. The vision statements outlined in this chapter are aimed at boosting Thiruvananthapuram's position as one of the most preferred and most sought-after destinations for people of all age groups, professions, and interests.

The vision statements defined in this section aim at

1. Establishing Thiruvananthapuram's strong connection to the world,
2. Making Thiruvananthapuram a happening and lively city,
3. Ensuring cleanliness and sustainability,
4. Facilitating equitable development keeping in mind the heritage of the city,
5. Establishing best-in-class healthcare facilities,
6. Establishing top educational facilities,
7. Facilitating well-connected transit options,
8. Ensuring availability of enough job avenues, and
9. Creating a well-known brand.

The five statements, which when articulated together, establish the vision for Thiruvananthapuram are depicted below:

01		A prosperous city where the average GDP per capita is 4 times the current number, the unemployment rate is reduced by 95 percent, the inflation rate is lesser than the national inflation rates, and is a zero-poverty region
02		A happy and healthy city where the city Human Development Index (HDI) is at par with the top 5 ranked countries of the world in terms of HDI
03		A sustainable city which is Zero Waste, Carbon Neutral, Climate Positive, and Disaster Resilient and most of the basic items for daily consumption are produced in the region itself and is ranked in the top 10 in the world's cleanest cities and pollution levels drop by 95 percent of the current levels
04		An inspirational city where one educational institution and one healthcare institution are in the top 10 across the world
05		A highly sought-after tourist destination with a five-fold increase in tourists visiting the state

To facilitate vision-driven planning and execution, and ensure real development which will positively impact the life of citizens for generations to come, we have identified five development pillars: -

01. Sustainable development

For sustainable development of Thiruvananthapuram, the key priorities are effective waste and sewage management, improving the overall liveability, maintenance of the water bodies, and leveraging the solar power potential.

02. Human capital

Thiruvananthapuram, being home to several reputed educational institutions and research centers, has immense potential to establish itself as one of the most sought-after education destinations in the country. Elevating the Technopark to become a global center of excellence for technology enablement, establishing Thiruvananthapuram as the hub for education across multiple stages.

03. Seamless connectivity

Improving the connectivity of Thiruvananthapuram by air, road, sea, and rail is the immediate need of the hour and key to positioning Thiruvananthapuram as the preferred destination for economic progression, career enhancement, spiritual fulfilment, health care, and overall mental, physical and emotional wellbeing.

04. World-class infrastructure

Creation of commercial markets of international standards while protecting the conventional attributes of local markets, and launching Kovalam on a global platform to further position it as an unparalleled beach destination in the world are the key priorities.

05. Improved livability

Enhanced and improved liveability could be facilitated through improving the health care delivery services, promoting safe-to-eat farming, making Thiruvananthapuram a sports and activity hub, establishing disabled-friendly public spaces and barrier-free pedestrian areas, and establishing a high court bench in Thiruvananthapuram.

It would also be important to identify the funding sources for undertaking the projects envisaged within these five pillars. Exploring funding options from the following sources would be integral in achieving the expected outcomes with quality and in a time-bound manner:

Government	International Financial Institutions (IFIs) such as the World Bank, the Asian Development Bank, Japan International Cooperation Agency, Gesellschaft für Internationale Zusammenarbeit (GIZ), etc.	Private sector	CSR initiatives would be integral to achieving the expected outcomes with quality and timeliness.

In the next section, the preferred funding options for undertaking the projects under each of these five pillars have been outlined.

03

Thiruvananthapuram 2025:

Five key pillars and Development Agenda

01 | Sustainable Development

The sustainable development of Thiruvananthapuram will require multi-sectoral, multi-disciplinary and multi-stakeholder collaboration and collective action. Institutional priorities and governance mechanisms need to respond to the sustainable development challenges. In the current context, sustainable development should be centered around the sectors of water, waste management, and energy.

Subsequent to the public protest over the shutting down of the only municipal landfill in Thiruvananthapuram in 2011, the Thiruvananthapuram Municipal Corporation (TMC) introduced segregated collection of waste to ensure maximum efficiency. It formalised and institutionalised source-level composting and decentralised resource recovery as part of city waste management. Quality and quantity management of water in Thiruvananthapuram is very important and there is an urgent need to involve the community in management of water bodies and related resources. Thiruvananthapuram ranks 1st in the Annual Survey of India's City-System 2017 conducted by Janaagraha.

Some of the key Initiatives taken to ensure sustainable development are as given below:

Waste Management

- Dry waste segregated collection hub at Sasthamangalam
- The Corporation has also launched an app, Smart Trivandrum, which has details about waste management, recycling facilities, periodical clean-ups
- Slab based waste management fee for waste collection in the corporation limit
- Green Army, a team of volunteers, is a key group that implements the green protocol and creates awareness about decentralized waste management

Green Revolution

With a massive campaign on to consume pesticide-free vegetables, vegetable gardens have become a common sight and not only in households. Several schools, government offices, private enterprises and corporate offices grow vegetables on its premises

Green Protocol

Thiruvananthapuram to implement the initiative of Fifteen battery-powered three-wheelers to make "savaari" as part of Smart City project, which will reduce the pollution in the city
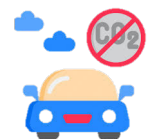
Water Capital

Government and the Corporation have initiated measure by which the water resources in the district are getting a new life with ponds being revived and rivers, lakes and oceans being rid of plastic, sewage and other pollutants.

Source: Ten zero-waste cities: How Thiruvananthapuram cleaned up its act, Down to earth, https://www.downtoearth.org.in/news/waste/ten-zero-waste-cities-how-thiruvananthapuram-cleaned-up-its-act-68539, accessed on 24-12-2019, Kerala: A green revolution in cyber city, Times of India, http://timesofindia.indiatimes.com/articleshow/71780639.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst, accessed on December 2019

Sustainable development: City benchmarks
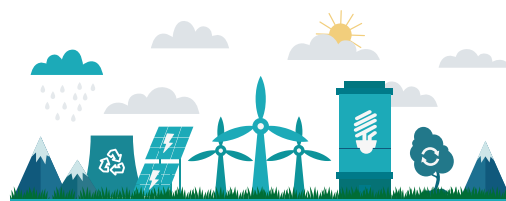
1. Dublin, Ireland

- Compact city with a network of sustainable neighbourhoods which have a range of facilities and a choice of tenure and house types, promoting social inclusion and integration of all ethnic communities.
- Transition of the city to a low-carbon sustainable city. All buildings will have been built or retrofitted to near zero energy building standards, which will provide comfortable, warm, living and working environments.
- Use of 'conventionally-fueled' cars in urban transport and achieve essential CO2-free city logistics

2. Galveston, Texas

- Community Task Force, comprising residents and community stakeholders, on the development and implementation of the sustainable development plan of the city
- Achieving certification under LEED for Neighborhood Development

3. Cape Town, South Africa

- Strengthen coordination among national statistical systems and regional and international organizations active in the production of data and statistics for sustainable development
- Sustainable public procurement (SPP) focuses on achieving value for money across the entire value chain and can be used as a lever to promote the green economy
- All the traffic lights in the city have been retrofitted with light emitting diodes (LED) which are more energy efficient

4. San Francisco, California

- The Climate Mobilization Act, makes sustainability a major priority for New York's built environment, targeting buildings that are among the biggest contributors to the city's carbon emissions
- The passive house concepts have been initiated, which can dramatically curb energy loss. For all new construction, for example, builders will be required to document certain thermal bridges, or heat loss that occurs when an object is more conductive than the materials around it

5. Portland, Oregon

- Community-wide green building policy in the nation to require LEED certification for private commercial development & green performance standards for affordable housing development whenever such projects received a level of public financing
- Bureau of Planning to develop the first-ever Sustainability Policy for an urban renewal area, the North Pearl District
- Green and Healthy Affordable Housing Policy that requires improvements in energy efficiency, indoor air quality, water use and more.

6. Berlin, Germany

- Sustainable development plays an important role in all policy areas in Berlin.
- Berlin produces a Report for the sustainable development of the city
- Equally, a Sustainable Development Profile was drawn up for Berlin with the involvement of diverse interest groups, in which numerous areas and specific projects were described, which contribute to a continuous improvement.

7. Helsinki, Finland

- Helsinki is the first European city to deliver a sustainable development report to the United Nations (UN)
- Helsinki actively cooperates with other cities to ensure that the role of cities as influencers is acknowledged in key international forums and networks
- High Level Political Forum (HLPF) assesses global progress towards the goals stated in the Agenda 2030 action programme for sustainable development

1. Dublin City Development Plan, 2016-2022.

2. Rebuilding Galveston, Texas As An Affordable, Sustainable Community, Smart Cities Drive, https://www.smartcitiesdive.com/ex/sustainablecitiescollective/rebuilding-affordable-sustainable-community-galveston/31987/.

3. S.F. passive house unusual offering on architects' home tour, San Francisco Chronicle,https://www.sfchronicle.com/homeandgarden/article/S-F-passive-house-unusual-offering-on-6506655.php#:~:text=1%2C%20was%20the%20first%20certified,for%20sale%20in%20San%20Francisco.&text=A%20passive%20house%2C%20or%20Passivehaus,and%20a%20heat%20recovery%20ventilator.

4. CURRENT OREGON SUSTAINABLE DEVELOPMENT INITIATIVES, https://www.portlandoregon.gov/bds/article/184672.

5. Sustainable Development Goals in Berlin, Senate Department for the Environment, Transport and Climate Protection.

6. Helsinki and the UN Sustainable Development Goals, City of Helsinki, https://www.hel.fi/helsinki/en/administration/strategy/sustainability/#:~:text=The%20Agenda%202030%20aims%20for,the%20environment%2C%20economy%20and%20people.&text=In%20the%20Helsinki%20City%20Strategy,the%20UN%20Sustainable%20Development%20Goals.

Projects wishlist

01	02	03	04
Integrated Waste and Sewage Management	Rejuvenation and Continuous Upkeep of Water Bodies	Making the city more beautiful and liveable	Improve the use of solar power in Thiruvananthapuram
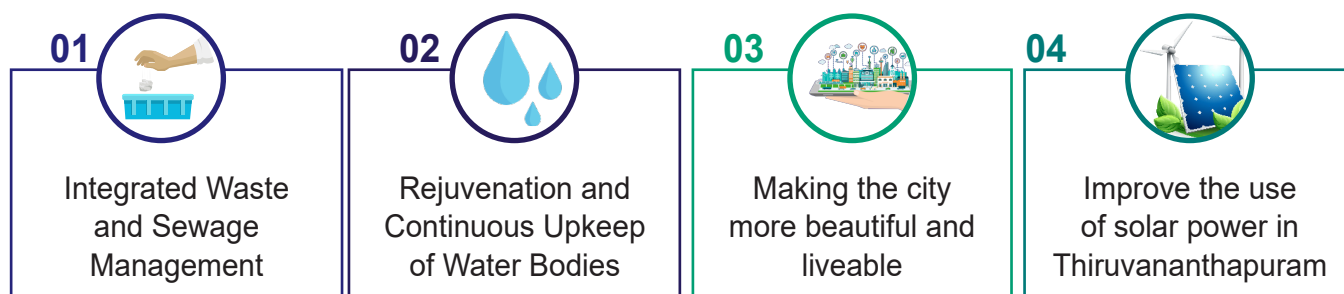
1. Integrated Waste and Sewage Management Project

Preferred Funding mode		Impact
Government	✓	High
IFIs (ADB, GIZ, AFD, World Bank)	✓	High
Private		Medium
CSR		Medium

Goal

To ensure a clean city which promotes safe and hygienic waste management practices – at a house level, ward level, and city level and promote reuse and recycle wherever possible and prevents use of plastic and other environmentally hazardous materials

Objectives

1. Be among the top among the clean cities ranked by the Government of India
2. Be among the top cities in India for waste management and cleanliness
3. Reduce per capita waste production by 75 percent

Initiatives

1. Establishing decentralised garbage plants for producing energy from garbage and waste
2. Ensuring all houses/residence associations and flats have a biogas tank which can be leveraged for cooking
3. Ensuring zero open drains to water bodies
4. Enhancing public awareness about safe and effective methods of waste disposal
5. Adopting of a centralised approach for treating and disposing medical waste
6. Adopting of a centralised approach towards waste collection, disposal, and reuse of waste from hotels and other commercial establishments
7. Establishing of cold storage centres of international quality to support the recycling of meat waste & fish waste
8. Ensuring all hospitals have a functional waste/sewage treatment plant
9. Ensuring waste bins across all roads in the city and ensuring regular upkeep and maintenance of these waste bins
10. Adopting strategies to make the city plastic-free

2. Making the city more beautiful and liveable

Preferred Funding mode		Impact
Government	✔	High
IFIs		
Private	✔	Medium
CSR	✔	

Goal

Building a city that is liveable and beautiful – in short, a great place to live and work from – and which considers the holistic well-being l of the life of its inhabitants

Objectives

1. Achieve global recognition as one among the world's most beautiful cities
2. Get ranked among the cleanest cities in India's clean city survey
3. Ensure excellent air-quality

Initiatives

1. Building more parks and green spaces across the city
2. Promoting wall garden usage
3. Developing heritage areas/sites around renowned temples, culturally relevant areas, etc.
4. Establishing select areas as cultural tourism sites where the Kerala culture can be showcased through live performance, traditional arts and crafts center, restaurants serving traditional food, antique stores, art galleries, etc.
5. Beautifying the current public spaces like Gandhi Park, and other parks
6. Implementing mechanised cleaning of roads
7. Promoting individual social responsibility to drive cleanliness
8. Promoting the use of electric vehicles
9. Creating more resting spaces
10. Ensuring pothole-free roads; waste bins at regular places; no unauthorised roadside vendors; no encroachment of footpaths; working streetlights; working drainage system; stray dog-free areas; clean public spaces
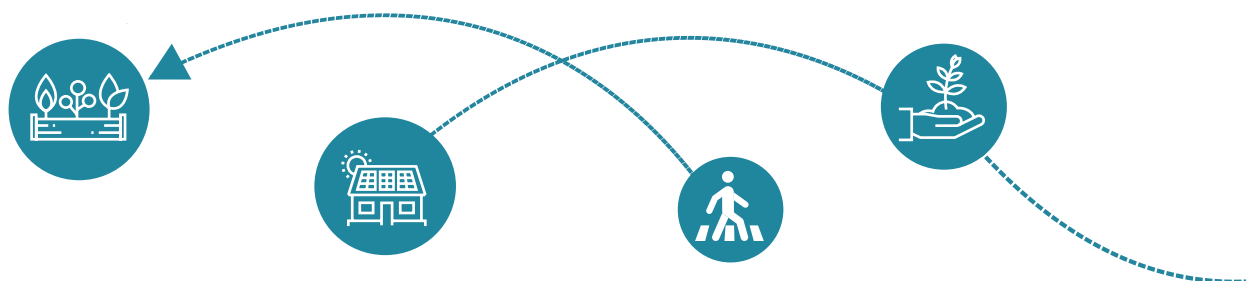
3. Rejuvenation and Continuous Upkeep of Water Bodies

Preferred Funding mode		Impact
Government	✓	High
IFIs (World Bank, JICA, DFID)	✓	
Private		Medium
CSR		

Goal

To ensure a clean city which promotes safe and hygienic waste management practices – at a house level, ward level, and city level and promote reuse and recycle wherever possible and prevents use of plastic and other environmentally hazardous materials

Objectives

1. Be among the top among the clean cities ranked by the Government of India
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9. Ensuring waste bins across all roads in the city and ensuring regular upkeep and maintenance of these waste bins
10. Adopting strategies to make the city plastic-free

4. Improving the use of Solar Power in Thiruvananthapuram

Preferred Funding mode		Impact
Government	✓	**High**
IFIs (ADB, IFC)	✓	
Private	✓	**Medium**
CSR		

Goal
Making Thiruvananthapuram one of the topmost cities in the country in the usage of solar power across residential, commercial, and non-commercial establishments

Objectives
1. Increase usage of solar power in households, commercial establishments, and government offices by 2025
2. Increase generation of solar power in the district by 50 percent
3. Reduce per capita electricity consumption through traditional means
4. Make Thiruvananthapuram one of the top 5 cities in the country in terms of per capita solar energy usage

Initiatives
1. Ensuring solar power supply for all government offices/schools
2. Incentivizing shops and other commercial establishments to move to solar power
3. Setting up solar power electric vehicle charging points
4. Promoting the use of rooftop solar panels
5. Converting streetlights to solar powered energy efficient lights that can be controlled either through a smart grid or are responsive to the light intensity
6. Leveraging floating solar panels in a cost efficient and environment friendly way (the dam reservoirs can be used for this)
7. Setting up a manufacturing company for producing solar panels
8. Utilising barren land for creating solar farms
9. Incentivising research for increasing the efficiency of solar panels
10. Expanding access to solar energy to apartment dwellers, low-income residents, small businesses and non-profits through community solar projects and third-party financing options, such as power purchase agreements
11. Requiring new homes and buildings to be built with solar panels, or at least be constructed to be 'solar-ready'

02 | Human Capital

Thiruvananthapuram is a major educational hub as well as knowledge capital of the state. The city boasts of premier education institutions, R&D centres, technology parks of national and international reputation. The city is fast emerging as an important knowledge city of south India and is rated high among tier II cities for its improved infrastructure.

29
No. of schools

40+
No. of colleges

15+
research centres in:
- Space Science
- Information Technology
- Bio-Technology
- Medicine

60,000
Technology professionals

450
IT/ITeS companies

Source: Trivandrum- The Education Hub, Taurus Investment Holdings India, accessed on August 2018, http://www.tiholdings.in/social/trivandrum-the-education-hub/. 2. IT Parks, Official Web Portal, Government of Kerala, https://kerala.gov.in/it-parks
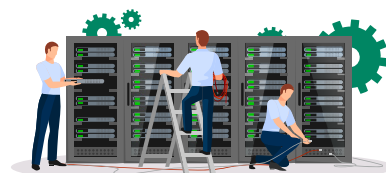
Major educational & research centres in Thiruvananthapuram

- Vikram Sarabhai Space Centre
- Indian Institute of Space Science and Technology
- Indian Institute of Science Education Research
- Brahmos Aerospace
- Regional Cancer Centre
- National Institute of Interdisciplinary Science and Technology
- Tropical Botanical Research
- Regional Research Laboratory

- University of Kerala

- College of Engineering
- Rajiv Gandhi BIoTechnology Centre

- Govt. Medical College (AIIMS)
- Sree Chitra Tirunal Institute for Medical Sciences & Technology

Source: Trivandrum- The Education Hub, Taurus Investment Holdings India, accessed on August 2018, http://www.tiholdings.in/social/trivandrum-the-education-hub/.

Workforce of Thiruvananthapuram

The city is home to a large number of state- and central-government employees which make up a large percentage of the city's workforce. Thiruvananthapuram is a major IT and ITeS hub in India. The city supports a good percentage of workforce in this sector. Thiruvananthapuram houses major multinational Technology companies like UST Global, Oracle Corporation, Allianz Technology, Tata Consultancy Services, Infosys, Toonz Animation India, Tata Elxsi, Nissan, RR Donnelly and Quest Global. Technopark is the largest information-technology park in India in terms of built-up area and it is the largest employment base campus in Kerala with 52,000 IT/ITeS professionals and about 400 companies.

Human Capital : City Benchmarks

1. London, United Kingdom

- London has 40 higher education institutions and has a student population of more than 400,000. Among the institutions in London are some of the old and world-famous colleges that today make up the federal University of London, modern universities, as well as several smaller and often highly specialised universities and colleges. Additionally, over 45,000 students in over 180 countries follow the University of London External System

- There's been substantial growth in London's workforce since 2005, when it stood at 4.3 million. During the ensuing ten years the number of non-UK EU workers more than doubled from 326,700 and the increase in those from elsewhere in the world rose at an even faster rate. They are up by a million. The total London workforce is just under 5.2 million people.

2. New York, United States

- The New York City public school system is the largest in the United States. More than 1.1 million students are taught in more than 1,700 public schools with a budget of nearly $25 billion

- New York City has many nationally important independent universities and colleges, such as Barnard College, Columbia University, Cooper Union, Fordham University, Long Island University, Manhattan College, New York Institute of Technology, New York University, Pace University, Pratt Institute, St. John's University, The New School, Vaughn College of Aeronautics and Technology, and Yeshiva University

- The city has dozens of other private colleges and universities, including many religious and special-purpose institutions, such as St. Francis College, The Juilliard School and The School of Visual Arts.

1. London's Student Population, Savills, accessed on July 2013, https://www.savills.co.uk/research_articles/229130/169076-0#:~:text=With%20300%2C000%20full%2Dtime%20students,most%20active%20in%20the%20country.

2. Where is London's workforce from and what jobs do those 5.2 million people do?, Onlondon, accessed on March 2017, https://www.onlondon.co.uk/where-is-londons-workforce-from-and-what-jobs-do-those-5-2-million-people-do.

3. Education System in New York, NY, accessed on September 2017, http://www.new-york.need.estate/forum/viewtopic.php?t=12. 4. UK University Rankings, Study in UK, https://www.studyin-uk.in/uk-study-info/university-rankings/.

Project wishlist

Taking Technopark (Phase 1, Phase 2, Phase 3, and Technocity) to greater heights	Thiruvananthapuram as an education hub	Satellite Campus of an International University	Digital University	Advanced Skill Development Centre

1. Taking Technopark (Phase 1, Phase 2, Phase 3, and Technocity) to greater heights ntegrated Waste and Sewage Management Project

Preferred Funding mode		Impact
Government	✓	High
IFIs		High
Private		Medium
CSR		Medium

Goal
Transforming Technopark into one of the world's finest technology parks and making it as a center of excellence for the latest technologies

Objectives
1. Create a direct employment for 150,000 people
2. Make Technopark home to India's best start-up ecosystem
3. Develop strategies to attract IP generating tech-companies and support the generation of patents from Technopark companies
4. Making Technopark a major center on the Kanyakumari-Trivandrum-Attingal high tech industrial corrido (after extending the Kanyakumari Chennai corridor)

Initiatives
1. Creating a conducive environment for private investment firms in the city
2. Taking focus steps to attract technology companies that will aid in logistics, travel and foreign exchange
3. Enhancing the start-up culture in Thiruvananthapuram and securing linkages with foreign start-ups)
4. Enhancing the transportation facilities to Technopark (ensuring last mile connectivity)
5. Ensuring single window clearance within a short time frame - not more than 7 days (in the past, it used to be within 1 day) for all matters related to companies in Technopark
6. Taking active steps to bring in companies specializing in product development and digital transformation than service companies; Facilitating AWS/Google Cloud to set up their infrastructure
7. Bringing in IT services under the ambit of essential services and assuring 24X365 obstruction free work assurance
8. Creating a hub for financial companies around the Technopark area
9. Enhancing the MICE (Meetings, Incentives, Conferences, and Exhibitions) facilities inside Technopark
10. Creating centre of excellences inside Technopark which will promote the latest and innovative technologies (like Quantum Technology, 3D Printing, Big Data, Deep Tech etc.)
11. Forming alliances with universities across the world who will contribute to the overall development of Technopark intellectual capacity
12. Increasing the use of solar power in Technopark

2. Thiruvananthapuram as an education hub

Preferred Funding mode		Impact
Government	✔	High
IFIs	✔	
Private	■	Medium
CSR	■	

Goal

Making Thiruvananthapuram as a global education hub across all spheres and all stages of education (from high school education to post graduate research for, humanities, sciences, technology, and traditional art forms, performing arts, and artisan skills.)

Objectives

1. Ensure at least one premier engineering and technology institute in the top 5 by 2025, two schools in the top 5 across the nation by 2025
2. Increase student inflow for education into Thiruvananthapuram
3. Increase the patents filed by the educational and research institutes in Thiruvananthapuram

Initiatives

1. Upgrading the quality of infrastructure of government & private schools and ensure digitalisation
2. Establishing national institutes of excellence or centers of excellence
3. Developing GV Raja School to international standards & Lakshmibai National College of Physical Education (LNCPE) as a sports university;
4. Upgrading KASE and ASAP to become the premium centre of skill education across the nation
5. Creating an institute within KSUM for educating entrepreneurs with running businesses
6. Creating a centre for digital learning that will act as the hub for all digital learning in the nation and build the largest repository of digital learning content

3. Satellite campus of an International University

Preferred Funding mode		Impact
Government	✔	High
IFIs	■■■■■■■	High
Private	✔	Medium
CSR	■■■■■■■	Medium

Goal
To set up satellite campuses of Ivy League universities in Thiruvananthapuram

Objectives
1. Ensure at least one satellite campus of an Ivy League university is set up by 2025
2. To drive growth in quality of education, which had seen a decline due to financial constraints resulting from a quantitative expansion of the sector

Initiatives
1. Facilitating the establishment of campuses in the city by the top ranked universities across the world (according to Times Higher Education World University Rankings)

4. Digital University

Preferred Funding mode		Impact
Government	✔	High
IFIs	■■■■■■■	High
Private	✔	Medium
CSR	■■■■■■■	Medium

Goal
Set up state's first Digital University in Thiruvananthapuram which will have five diverse schools in core areas, besides concentrating on research

Objectives
1. To energise and promote a robust network and an ecosystem of technology education, training, and workforce development in Thiruvananthapuram Region

Initiatives
1. Enhancing electronics and communications infrastructure in the city to facilitate the operations of the digital university including registration, admissions, fee payment, financial aid disbursement
2. Curating study materials electronically

5. Advanced Skill Development Centre

Preferred Funding mode		Impact
Government	✓	High
IFIs	✓	
Private	■	Medium
CSR	■	

Goal
Set up an advanced skill development centre (Knowledge City) in Thiruvananthapuram to create a skilled population which can cater to the skill needs of all emerging sectors under the aegis of Additional Skill Acquisition Programme (ASAP)

Objectives
1. Setting up an advanced knowledge city in Thiruvananthapuram to bridge the talent gap across new age technologies Artificial Intelligence, Data Analytics, BlockChain, Cognitive Science, Internet of Things, Augmented/Virtual Reality (AR/VR)
2. To energise and promote a robust network and an ecosystem of technology education, training, and workforce development of Thiruvananthapuram area

Initiatives
1. Undertaking a skill gap analysis across sectors to find out which skills and knowledge are lacking among the youth in the Thiruvananthapuram Area
2. Establishing MoUs/tie-ups with industry leaders and training service providers to reskill the youth in the area of emerging technologies

03 | Seamless Connectivity

Thiruvananthapuram has a well-developed transport infrastructure. The city and its suburbs may be traversed using road and rail. Within the city, city buses, taxis and auto rickshaws provide mobility. Scooters and motorcycles are the favored means of personal transport. Multiple taxi services operate at large scale in the capital city. The city is also well connected with its neighbouring states and cities via multiple connectivity options.

The Thiruvananthapuram International Airport, which is the first airport in Kerala, is a major gateway to the State and has direct connectivity to all the major cities in India as well as the Middle East, Malaysia, Singapore, the Maldives and Sri Lanka.

Vizhinjam seaport has been designated by the government as an authorised immigration check-post for entry and exit from India for international ships and cruises. The site at Vizhinjam has the following advantages – (i) proximity to international shipping route and East-West shipping axis, (ii) availability of 20m contour within a nautical mile off the coast, (iii) minimal littoral drift along the coast and therefore hardly any maintenance dredging, (iv) immediacy to national/regional road, rail network, and (v) flexibility in design and expansion being a greenfield project.

Six railway stations operate within city limits, including Thiruvananthapuram central station and three stations that serve the metropolitan area. Thiruvananthapuram Pettah, Kochuveli railway station, Kazhakoottam and Veli Railway Stations are located towards the north and Nemom railway station is to the south. The Central railway station is located at Thampanoor, 8 km from the airport. Kaniyapuram, Balaramapuram and Neyyattinkara railway stations serve the metropolitan area. The city is connected by rail to almost all major cities in India on a daily basis, while cities like Amritsar, Chandigarh, Dehradun, Ahmedabad, Kanpur, Jammu Tawi, Dibrugarh, Lucknow, Bilaspur, Indore, Howrah and Guwahati are multi-day journeys. Kochuveli railway station is a satellite station developed to ease congestion. Thiruvananthapuram is the first major South Indian city on the longest train route in India, the Kanyakumari–Thiruvananthapuram–Dibrugarh Vivek Express route and the Kanyakumari–Thiruvananthapuram–Jammu Tawi–Shri Mata Vaishno Devi Katra Himsagar Express route[2].

01 Road
- National Highway 66
- State Highway 2
- State Highway 45

02 Railways
- Thiruvananthapuram Central
- Thiruvananthapuram Pettah
- Nemom Station
- Veli Station
- Kazhakuttom Station

03 Air
- Thiruvananthapuram International Airport

04 Sea
- Vizhinjam Seaport

1. Thiruvananthapuram, Government of Kerala Website, https://trivandrum.nic.in/.

National Highway 66 (old NH 47) passes through the city. Thiruvananthapuram can be accessed from the North South Corridor National Highway 44, via NH 544 (old NH-47) at Salem, and at Kochi via NH 66. It connects southern cities such as Kollam, Kochi, Thrissur, Palakkad, Coimbatore and Salem. From the south NH 66 at Kanyakumari provides the North South Corridor (NH 44). It passes through Nagercoil. The city is connected by state highways such as SH_1, SH_2 and SH 45. The Main Central Road (MC Road) is the arterial State Highway in Kerala.

Intra-city public transport is dominated by the state-owned Kerala State Road Transport Corporation (KSRTC) which operates from 6 depots: City depot, Vikas Bhavan, Peroorkada, Pappanamcode, Kaniyapuram and Vellanad. These services were revamped in 2005 with the introduction of modern buses and electronic ticketing. KSRTC also operates JNNURM transport services and the Ananthapuri City Fast services for the city. Private bus services are also available. There is no bus service which connects the Thiruvananthapuram airport to the central city bus terminal.

Thiruvananthapuram Light Metro is planned as a fully elevated metro rail – rapid transit system to ease the congestion in the city. The Thiruvananthapuram line will start from Technocity and terminate at Karamana covering a distance of 22.537 km with 19 stations, along the old NH 47.

2. Top 10 longest railway routes of India, e-Rail, https://erail.in/blog/longest-train-route-in-india/40

Thiruvananthapuram has, in the last decade, experienced exponential growth of services-based and IT-based sectors, and a significant boom in its tourist footfalls. This has strained transport infrastructure that have brought the city's connectivity challenges to the fore. Although road construction is of a high standard, with appropriate marking and signages; a majority of Tier-II roads remain too narrow for the levels of traffic using them.

Seamless Connectivity: City Benchmarks

1. Shanghai, China
- The Shanghai port has topped UNCTAD's 2019 ranking of the world's best-connected ports. The Chinese port garnered a connectivity score of 134 points
- Shanghai has an expansive grade-separated highway and expressway network consisting of 16 municipal express roads, 10 provincial-level expressways, and 8 national-level expressways. Three municipal expressways and four provincial-level expressways are also under construction

2. Singapore
- Singapore is considered one of the cleanest and safest cities in the world
- Singapore has a fully integrated public transport network comprising over ground and underground trains and a bus network. The system also has incentives for commuters outside of peak hours to ease congestion
- Singapore has implemented an Intelligent Transport System (ITS), which uses data collection to keep road traffic running safely and smoothly.

3. Amsterdam, Netherland
- Amsterdam's commitment to energy efficiency, culture, and financial technology makes it a European powerhouse.
- City aims to completely ban gasoline and diesel cars by the year 2025 and become Europe's first zero-emission city
- Public transport in Amsterdam consists of metro, tram, bus and ferry routes operated mainly by GVB, the city-owned public transport operator.

4. Paris, France
- Paris makes the list for its massively growing tech business community that is said to be almost on par with London, attracting talent from across the world.
- The financial hub also has made a strenuous effort to improve the lives of citizens.
- The City of Lights has worked hard to promote clean transportation using bikes and electric vehicles.
- Using the power of the IoT, Paris aims to reinvent the way its public transportation, even going as far as creating a 100% automatic metro system.

5. Seoul, South Korea
- Seoul has a modern and efficient system of public transportation that includes both subway trains and buses
- Seoul has nine major subway lines that run all throughout the city and even go into the suburbs and surrounding areas
- There are two airports that serve Seoul
- Seoul is connected to every major city in South Korea by railroad. Seoul is also linked to most major Korean cities by the KTX bullet train

6. Boston, United States
- Boston is a friendly, walkable city with a great public transportation system known as the T (MBTA). All of Boston's downtown areas and neighborhoods are accessible by train, bus, trolley, or water transportation
- Boston Bikes is part of the vision for a vibrant and healthy city

1. Shanghai tops ranking of world's best-connected ports, UNCTAD, https://unctad.org/news/shanghai-tops-ranking-worlds-best-connected-ports#:~:text=The%20Shanghai%20port%20has%20topped,points)%2C%20also%20in%20China, accessed on August 2019,

2. Public Transport in Singapore, https://worksingapore.com/articles/live_4.php#:~:text=The%20three%20main%20modes%20of,the%20MRT%20and%20taxis%20respectively,

3. Smart Nation: Singapore's Intelligent Transport System (ITS), the Asean Post, accessed on February 2021, https://theaseanpost.com/article/smart-nation-singapores-intelligent-transport-system-its

4. Channels of the city the transfer of all the people, Course Hero, https://www.coursehero.com/file/p6frhl3/channels-of-the-city-the-transfer-of-all-the-people-along-the-waterways-in/.

5. Seoul: Public Transportation, Trip Advisor, https://www.tripadvisor.in/Travel-g294197-s303/Seoul:South-Korea:Public.Transportation.html#:~:text=Seoul%20has%20a%20modern%20and,5%20minutes%20and%20are%20clean.

6. 11 of the Most Innovative Cities in the World, SilverRail Seamless Connectivity, https://www.seamlessmobility.com/11-of-the-most-innovative-cities-in-the-world/#:~:text=A%20top%2Dthree%20contender%20on,by%20the%20year%202025%20and

Project wishlist

Fast Tracking Vizhinjam Port	Trivandrum International Airport	Thiruvananthapuram Metro Project	Integrated Road Development

Thiruvananthapuram as a mobility hub		Fast-tracking development of K-Rail Silverline project
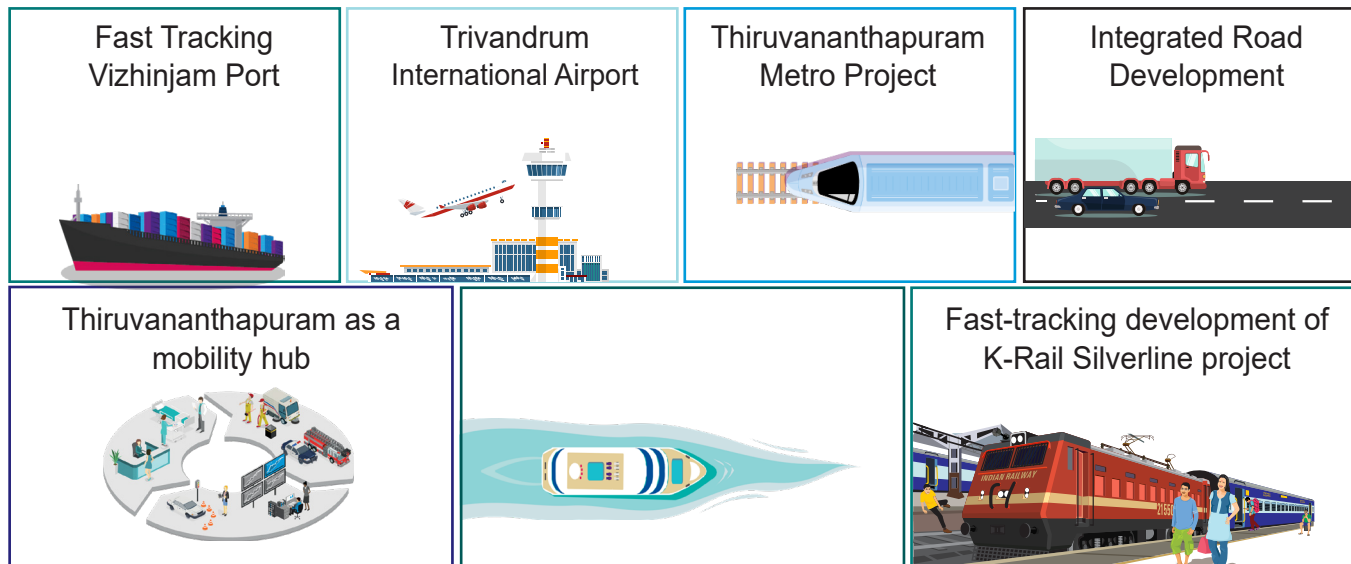
Some of the projects which shall contribute to the sustainable development of Thiruvananthapuram are briefed below:-

1. Fast Tracking Vizhinjam Port

Preferred Funding mode		Impact
Government	✓	**High**
IFIs		
Private	✓	**Medium**
CSR		

Goal
Fast tracking the implementation of Vizhinjam port without any obstacles and making the port one of the best in India

Objectives
1.   Make Vizhinjam port one of the top 10 in India
2.   Create a direct and indirect employment of 25,000 by 2025 through the port

Initiatives
1. Digital Twins – Helps the port authorities experiment with the nearby environment to prototype improvements and evaluate the outcomes without real-world consequences.
2. Ship maintenance and repairs – Usage of underwater drones for preventive maintenance
3. Internet of Things (IoT) – Container Tracking Management Systems which uses sensors to detect changes in conditions as well as detecting unauthorised vessels/containers
4. Completing the 3.1km stretch of breakwater construction
5. Safety and security – Implementation of detection and early warning systems
6. Blockchain – Securely linking silo systems to record and track transactions, thereby reducing time spent on manual data entry

2. Trivandrum International Airport

Preferred Funding mode		Impact
Government	✔	High
IFIs		
Private	✔	Medium
CSR		

Goal

Making Thiruvananthapuram International Airport the most preferred airport in the State

Objectives

1. Achieve a passenger volume of three times the present number which will increase the GDP in the region by 10 percent
2. Achieve a cargo volume which is enough to make it the top 5 in India
3. Create a direct employment and indirect employment for nearly 20,000 people
4. Achieve energy neutrality by 2025
5. Transform airport operations using technology

Initiatives

1. Biometrics and Face recognition – Verification of passengers through fingerprints, IRIS scans
2. Assistive Tech – Self driving electric wheelchairs to assist physically challenged guests
3. Ensuring connectivity to major cities across the world and all capitals in India (this will include restarting the services which were stopped)
4. Adopting solar power usage
5. Transforming the airport into a Multi-modal airport hub
6. Creating a plane spotting area near Ponnara bridge and a park accompanying the same

3. Thiruvananthapuram Metro Project

Preferred Funding mode		Impact
Government	✔	**High**
IFIs (JICA, JBIC)	✔	
Private		**Medium**
CSR		

Goal
Starting the Thiruvananthapuram Metro and taking it further to make it well connected to all parts of the district and making it an efficient and cost-effective way of public transport

Objectives
1. Launch the first phase of the Thiruvananthapuram Metro Project 2. Ensure household connectivity to a metro station 3. Make the overall metro energy neutral

Initiatives
1. Starting Thiruvananthapuram Metro Project connecting Attingal – Neyyatinkara – Nedumangad to Technopark – Airport – Medical College – Thampanoor 2. Ensuring last mile connectivity from the metro through tie-ups with other public transport providers 3. Increasing last mile connectivity through pay-per-use bicycle plans 4. Introducing value added services for enhanced revenue generation

4. Integrated Road Development

Preferred Funding mode		Impact
Government	✓	High
IFIs (World Bank, KfW)	✓	
Private		Medium
CSR		

Goal

Ensuring well connected and well-built roads across the district which will help in a smoother transport of people and cargo and reduce congestion

Objectives

1. 100 percent of main roads to have footpaths
2. Reduce incidents occurring due to road-safety violations

Initiatives

1. Building the ring road and Growth Corridor to the east of Thiruvananthapuram. Outer Ring Road is a proposed 80 km road in Thiruvananthapuram. The first phase of the Outer Ring Road project under the Capital Region Development Programme will connect the 40-km stretch from Port of Thiruvananthapuram to Mangalapuram in Thiruvananthapuram and second phase will connect the 40km stretch from Mangalapuram to Parippally in Kollam district.
2. Upgrading and Road-widening of key roads
3. Ensuring streetlights/CCTVs on all roads; Building a smart signalling system that will adjust signals based on vehicle density and work on few signal-free crossings; Building a smart parking system
4. Ensuring last mile connectivity from the metro through tie-ups with other public transport providers
5. Increasing last mile connectivity through pay-per-use bicycle plans
6. Introducing value added services for enhanced revenue generation
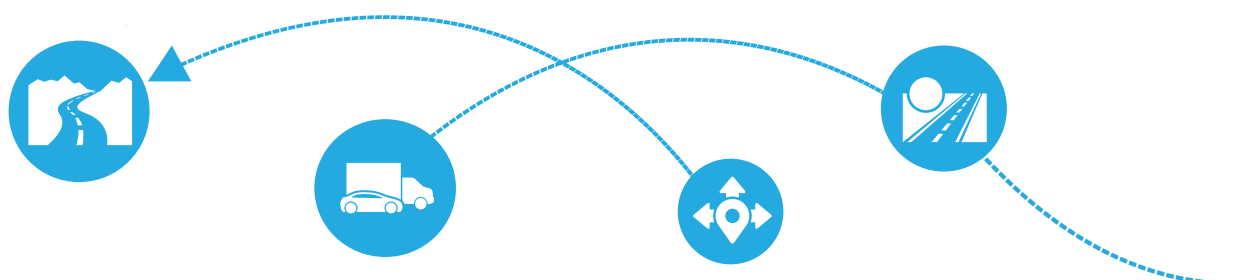
5. Thiruvananthapuram as a mobility hub

Preferred Funding mode		Impact
Government	✓	**High**
IFIs		
Private	✓	**Medium**
CSR		

Goal
Making Thiruvananthapuram as the leading mobility hub in South India across air, rail, road, and water

Objectives
1. Starting Thiruvananthapuram Metro Project connecting Attingal – Neyyatinkara – Nedumangad to Technopark – Airport – Medical College – Thampanoor in PPP model with viability gap funding
2. Ensuring last mile connectivity from the metro through tie-ups with other public transport providers
3. Increasing last mile connectivity through pay-per-use bicycle plans
4. Introducing value added services for enhanced revenue generation

Initiatives
1. Pay-per-use bicycle plan – GPS fitted bicycles along with fare validator that will handle payment
2. Designated separate spaces for pick up/ drop off of private vehicles, shared cabs etc
3. Electric vehicle infrastructure – EV charging stations
4. Bus Layover Zones
5. Connectivity and signages – signage branding, real-time tracking, Wifi points
6. Ambassadors – trained personnel or volunteers to educating community members about transit and enhancing their mobility experience
7. Well-designed waiting areas with retail spaces
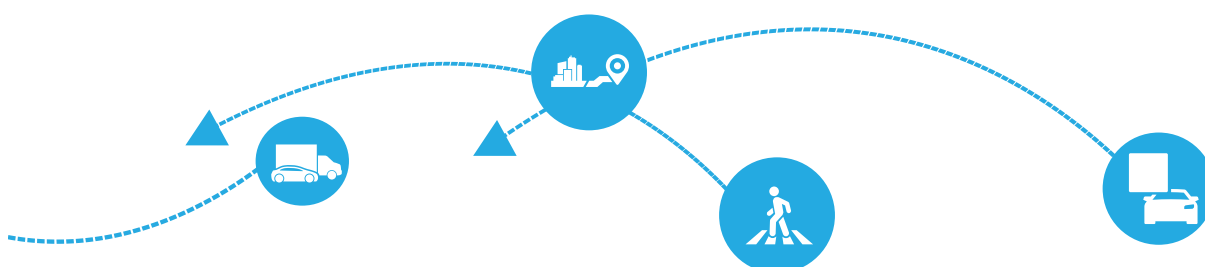
6. Integrated Waterway Development

Preferred Funding mode		Impact
Government	✓	High
IFIs (World Bank, JICA, DFID)	✓	
Private		Medium
CSR		

Goal
Creating an integrated waterway across the district which will help in not only passenger and cargo movement, but also contribute to the overall beauty and ecology of the district

Objectives
1. Integration of all waterways in the District
2. Increase passenger and cargo traffic significantly by 2025

Initiatives

1. Extending NW3 from Kollam to Kovalam
2. Ensuring connectivity to Vizhinjam
3. Widening Parvathy Puthanaar and other waterways to make them passenger and goods friendly
4. Developing and widening our existing canals
5. Initiating programmes for increasing transport and cargo flow through these water bodies (and building smaller jetties around to support this increased movement through waterways)
6. Creating demarcated zones around these waterbodies for recreation, commerce etc. so that the area around these waterbodies are seen as viable commercial locations
7. Creating an integrated branding program with a focus on waterbodies
8. Ensuring a continuous program to keep the waterbodies and the area around the waterbodies clean (and also launching a study to prevent weeds from forming on the waterbodies)
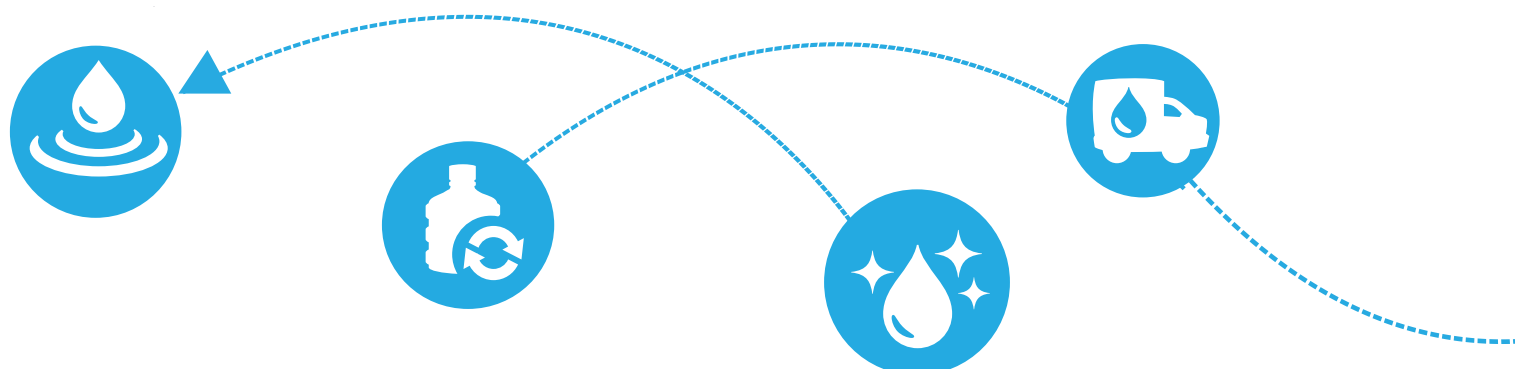
7. Fast-tracking development of K-Rail Silverline project

Preferred Funding mode		Impact
Government	✓	High
IFIs		
Private		Medium
CSR	✓	

Goal
To establish a Semi High-Speed Rail Corridor called Silver Line connecting Thiruvananthapuram to Kasaragod

Objectives
1. Create high speed rail corridor
2. Ensure Thiruvananthapuram is one of the top cities in India in terms of rail connectivity
3. To ensure least time-consuming mode of transport for travelling from the south end of Kerala to the north
4. Ensure usage of green energy from renewable energy sources during the operation phase.
5. Ensure last mile connectivity with system driven e-vehicle public transport system

Initiatives
1. Develop 10 stations with commercial and residential use. These stations would be developed as modern self-contained cities and sustainable Smart Cities in the vicinity of the stations of Semi High-Speed Rail Line and also alongside the alignment
2. Leveraging not for profit organisations, CSR funding to undertake massive awareness and cleanliness campaigns
3. Developing an integrated metric for passenger satisfaction and make this basis for payment of service contracts
4. Ensure last mile connectivity with system driven e-vehicle public transport system, multi model integration, charging and parking facilities for electric vehicles, etc, is included in terminal design.
5. Build connectivity to international airport of Trivandrum and existing railway stations
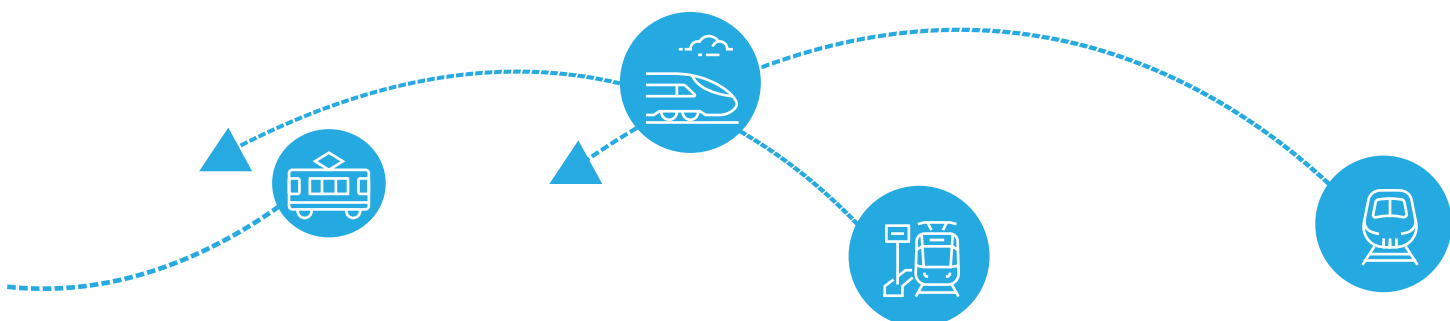
04 | World-Class Infrastructure

Thiruvananthapuram is developing its industrial infrastructure and attract investments on a large scale and aims to become one of the top in providing the best industrial ecosystem. Parks-based Industrial Development is being planned in the city. Industrial parks for multiple thrust sectors are being developed and Plug & Play facilities are envisaged in each of these parks. The abundant natural resources, skilled manpower, huge deposits in banks, world renowned traditional and ethnic products act as catalysts for potential investment.
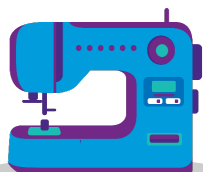
The industrial infrastructure facilities offered in the city include industrial parks, industrial estates, development areas/plots, export promotion zones and special economic zones catering to the agro sector, export promotion, small industries, film industry, IT, electronics and fisheries. Kerala Industrial Infrastructure Development Corporation (KINFRA), Kerala State Industrial Development Corporation (KSIDC) and Directorate of Industry and Commerce (DIC) has developed and sourced quality infrastructure facilities. This acts as a support to the new ventures or for expansion of the existing ventures.

Thiruvananthapuram is popular widely as one of the most important centre for healthcare facilities in Southern India. The city of Thiruvananthapuram also attracts travellers across the borders to arrive at this destination for exploring the healthcare facilities available in the town. The city paved way for patient friendly hospital initiative named ARDRAM provides quality services at all health levels. As a part of the program, it is envisaged to convert primary health centres into family health centres in a phased manner, in order to deliver effective family-centered health services .

The city aims to provide quality health care that is affordable and acceptable to all. The mission of the state is prevention, control and management of communicable, non-communicable and lifestyle diseases, healthy and pollution-free environment, etc. The strategy adopted by the state is a primary healthcare approach based on the principles of equity, inter-sectoral co-ordination and community participation.

Major Industrial Parks

KINFRA Small Industries Park Trivandrum	KINFRA International Apparel Park	KINFRA Film and Video Park	Special Economic Zone	Bio 360 Life Science Park

World Class Infrastructure: City Benchmarks

1. Singapore

- Singapore is a shining example of a country that has delivered on world-class infrastructure. According to the World Economic Forum's Global Competitiveness Index for 2017-2018, Singapore holds the second spot globally in the robustness of its infrastructure
- The Singapore Government commenced the development of industrial townships in other South East Asian countries
- Singapore's oldest industrial estates will be revamped to support the transformation of traditional manufacturing industries as well as new growth sectors such as agri-tech and environmental technology
- Singapore industrial park is awarded for its green leadership
- Singapore has 6 large industrial parks spread across the Republic. However, with the aim of assisting foreign companies, several developers in Singapore have also established overseas industrial parks which cater to companies distributing products in the region via the city-state
- Singapore's industrial parks are: The Airport Logistics Park, The Changi Business Park, The International Business Park, The Seletar Aerospace Park, The Singapore Science Park and The Tuas Medical Park

2. Tokyo, Japan

- Tokyo has world-class transportation and distribution networks consisting of land, sea, and air routes
- Keiyo Industrial Zone also known as the Keiyo Industrial Region, the Keiyo Industrial Area, or the Keiyo Industrial Belt, is an industrial zone on the northeastern coast of Tokyo Bay that crosses 8 cities in Chiba Prefecture, Japan
- The zone is a major base for the electric power generation, petrochemical, petroleum, shipbuilding, logistics, shipping, and steel industries
- The world's largest infrastructure project which is being built in India the Delhi-Mumbai industrial corridor has been inspired by Japan's Tokyo-Osaka industrial corridor

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2. Singapore to play a key role in Asia's infrastructure development, The BusinessTimes, https://www.businesstimes.com.sg/hub/singapore-business-awards-2018/singapore-to-play-a-key-role-in-asias-infrastructure-development#:~:text=In%20Asia%2C%20Singapore%20is%20a,%2C%20and%20info%2Dcommunications%20infrastructure,
3. Keiyō Industrial Zone, Britannica, https://www.britannica.com/place/Keiyo-Industrial-Zone

Project wishlist

Upgradation of Markets	Resurrecting Kovalam	Bio 360 Life Science Park	Industrial Corridor	Film Festival Complex and Film City

1. Upgradation of Markets

Preferred Funding mode		Impact
Government	✓	High
IFIs		
Private		Medium
CSR		

Goal

Transforming Thiruvananthapuram's current markets to create world class commercial markets while preserving the heritage of the market and protecting the existing market sellers

Objectives

1. Ensure one of the markets in the district is considered as one of the top 10 in the nation
2. Achieve significant increase in trade in the major markets in the district over the next five years

Initiatives

1. Renovating the present Chalai market in lines with the global markets such as Chatuchak or other flea markets while preserving the heritage and having clear demarcation for food, rest, different categories of items etc.
2. Creating multi-storied parking space near all the major markets
3. Creating a group of all small markets to ensure better prices for different items and thus passing on the advantages to the buyer
4. Forming an ecommerce portal for selling safe produce which are also stored via markets
5. Creating focused zones for some markets – for example, the world market can focus on export commodities, Palayam market can build excellence in wet market capabilities, and Chalai market can move forward as a flea market
6. Focusing on the concept of themed market zones like Gold Souk in Dubai, Central Markets in Kuala Lumpur and Singapore etc.
7. Ensuring proper audit of all safety precautions and labour guidelines in the market
8. Creating a Dilli Haat kind of area inside one of the markets
9. Promoting products made in Thiruvananthapuram through these markets

2. Resurrecting Kovalam

Preferred Funding mode		Impact
Government	✓	**High**
IFIs		
Private	✓	**Medium**
CSR		

Goal
Resurrecting Kovalam – the area, the tourism sector, the ecosystem around it – and making it one of the best sought after beach destinations across the world and ensure it moves much further than its earlier glory

Objectives
1. Make Kovalam one of the top 10 beaches in the Country
2. Increase the visitors to Kovalam by 10-fold (both domestic and international to be counted separately)
3. Increase the revenue from Kovalam tourism by 20-fold and ensure it provides three times the present direct and indirect employment to people

Initiatives
1. Taking steps to prevent coastal erosion in the area (steps which do not hurt the ecological balance and use natural materials)
2. Initiating beach nourishment across the area through soft and hard land reclamation methods
3. Focusing on 100 percent cleanliness in the beach area
4. Coastal Security – Kiosks and outposts for police and lifeguards, CCTV cameras for surveillance
5. Walkways – Granite paved walkways
6. Amphitheatres for presenting art forms
7. Transforming Kovalam as a centre for beach sports and water sports/adventure sports and training the locals to be part of these sports related activities
8. Achieving blue flag certification for Kovalam
9. Relocating unscientific constructions from the coastal area
10. Promoting competitive fishing in Kovalam
11. Creating a corniche like area/marine drive like area which is a balance between environment and provides opportunities for commercial establishments
12. Creating more homestays which will promote an authentic Kerala experience for the tourists

3. Bio 360 Life Science Park

Preferred Funding mode		Impact
Government	✓	High
IFIs		High
Private	✓	Medium
CSR		Medium

Goal
Establishing a Life Sciences Park at Thiruvananthapuram with world class infrastructure facilities for life sciences-based industries and R&D institutions

Objectives
1. To promote Life Sciences in the region of Kerala
2. To provide the state with first integrated approach to life science research covering all segments such as agriculture, food and nutrition, human health, animal health, industrial biotechnology and medical technology
3. Phase I of the project aims to encourage innovation and provide various support services to incubated companies within the Bio Park

Initiatives
1. Development of plots for large and Integrated Bio-IT companies
2. Building facilities such as an Innovation cum Incubation Centre, Research cum Learning Centre, Animal Science facility, Bio-Process facility, a MedTech prototyping, design and validation centre and toxicology services among others
3. Providing common infrastructure facilities for the Life Science park such as power, water and internal roads
4. Should acquire and develop another 130 acres of land for industrial use by companies in various sectors of life sciences
5. Providing manufacturing space for Medical Device Companies

4. Corridor-led development of Industrial Infrastructure

Preferred Funding mode		Impact
Government	✓	**High**
IFIs		
Private	✓	**Medium**
CSR		

Goal
Development of an industrial corridor for smooth access to the industrial production units, decreased transportation and communications costs, improved delivery time and reduction in inventory cost

Objectives
1. To boost the manufacturing sector of the state
2. Effective integration between industry and infrastructure, leading to overall economic and social development

Initiatives
1. To initiate Capital City Regional Development Programme: This programme is in connection with Vizhinjam Port, which will construct a six lane road of 78 Kms from Vizhinjam to Navayikulam, along the eastern side of Thiruvananthapuram City and will establish a massive network of Knowledge Hubs, Industrial Parks, Amusement Centres and Townships in 10000 acres of land on both sides of the road
2. INR50,000-Crore Projects In Kerala Under Mumbai-Kanyakumari Corridor. Mumbai-Kanyakumari Economic Corridor will be a Gamechanger for Thiruvananthapuram
3. 27-kilometre highway project from Kazhakoottam to Mukkola, built at a cost of INR1,121 crore as a part of Mumbai-Kanyakumari Economic Corridor
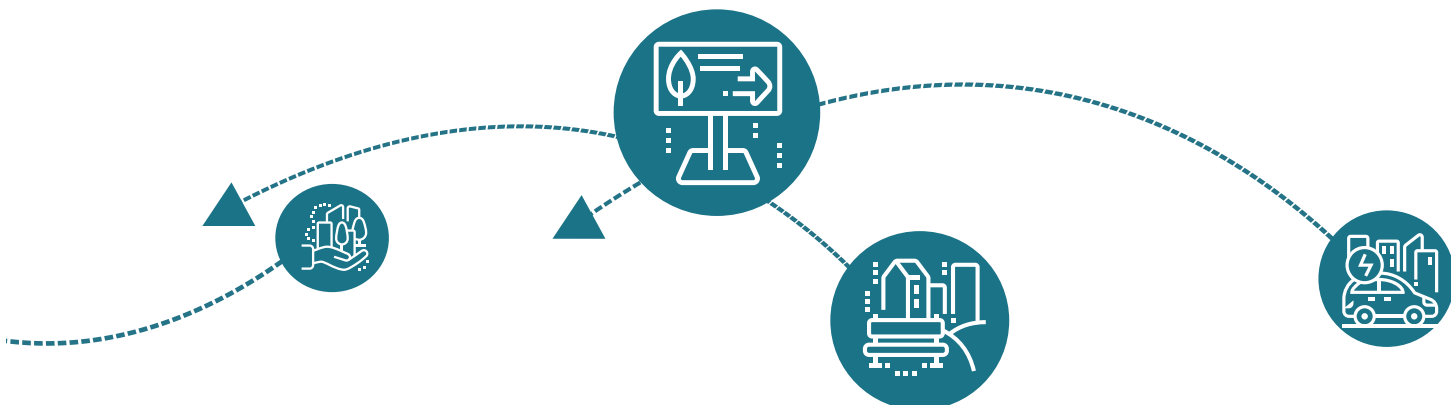
5. International Film Festival Complex and Film City in Chitranjali Studio

Preferred Funding mode		Impact
Government	✔	High
IFIs		
Private	✔	Medium
CSR		

Goal
Support the film industry of Kerala with high quality infrastructure

Objectives
1. High quality infrastructure/complex to host The International Film Festival of Kerala (IFFK) which is a film festival held annually in multiple cities of Kerala
2. Kerala to have its own mega film city

Initiatives
1. Identified two locations for the setting up of the International Film Festival Complex- KINFRA campus and the Greenfield Stadium
2. Kerala Film City project to begin at Chitranjali studio complex in Thiruvananthapuram
3. Elaborate and modern movie sets including railway bogies too would be put up for filming movies in the Kerala Film City project
4. Chitranjali studio, which currently has the largest shooting floor in Asia, will have one more floor constructed as a part of the film city project

05 | Improved Liveability

All year round, leisure activities in Thiruvananthapuram provide a wide range of options for every age group. The capital city is loaded with lavish shopping areas, resorts, restaurants, and spas that ensure that the visit to the city is hassle-free. From a convincing landscape and outdoor to some world-class stay options and facilities, the city packs an incredible amount of diversity in the luxury activities it offers.

Though it is officially the political hub of the state, it is also considered a major academic centre with its numerous schools and colleges spread all over area. Recently, it has also flourished as a popular IT hub, with the setting up of the Techno Park that has changed the very fabric of city life. The city is surrounded by numerous palm-fringed beaches that are a balm to the soul after a long day spent at work and many sunset-gazers can be seen thronging the beaches in the evening with their kids. Kovalam, a world-famous beach is also a half hour drive from here. Being the state capital, the city boasts of high quality infrastructure as compared to other cities, alongwith consistent provision of basic utilities like water and electricity. Numerous malls are also coming up all over the city aside from other entertainment avenues, thus making Thiruvananthapuram a great place to stay in.

Thiruvananthapuram is a major tourist hub in India. Tourism has contributed heavily to the economy of Thiruvananthapuram. The entire tourism package such as hill stations, back waters, beaches, lagoons, and wildlife sanctuaries are present in the district. The foreign tourist flock to Kovalam and Varkala which are the popular beach towns located near the city. The Padmanabhaswamy Temple located at the heart of the city is known as the richest place of worship in the world. The city is also known for its unique style of architecture involving Kerala Architecture with British and Dravidian influences.

Another major attraction of the city is medical tourism, as there are more than fifty recognised Ayurveda centers in and around the city. Medical tourism is further promoted by world-class modern medicine hospitals in the city. Varkala is a tourist hub in Thiruvananthapuram. This part of the city has high inflow of visitors among other places in Kerala. The place possesses more than 100 resorts in which majority provides Ayurvedic spa and treatment to the customers.

Health and medical tourism is perceived as one of the fastest growing segments in marketing 'Destination Kerala' today. While this area has so far been unexplored, now various state tourism boards and even the private sector consisting of travel agents, tour operators, hotel companies and other accommodation providers are all eying health and medical tourism as a segment with tremendous potential for future growth. Demand for Health tourism is increasing swiftly where domestic tourists opt for health treatment. There is a large inflow of tourists especially from the north east for the well-known ayurvedic tourism of the city.

Components of Health Tourism of the city include

01 **Medical Tourism:** People travel to healthcare destinations for medical treatment like surgery etc. in multi- speciality hospitals

02 **Ayurveda tourism:** Persons are travelling to healthcare destinations for taking ayurvedic treatment in speciality centres

03 **Dental tourism:** Persons travel to healthcare destinations for dental treatment

04 **Eye Care tourism:** Persons travel to healthcare destinations for seeking treatment in eye care hospitals

05 **Spa tourism:** Persons travel to healthcare destinations for visiting spa resorts

06 **Siddha/ Unani:** Persons travel to healthcare destinations for taking traditional medicines and Unani

07 **Yoga and Meditation:** Persons travel to healthcare destinations for practicing yoga and meditation

08 **Kalari Treatment:** Persons travel to healthcare destinations for taking treatment from martial arts masters

Major Tourist Spots Across the Districts

1 Napier museum	**7** Agasthyamala rain forests	**13** Kerala Science and Technology Museum
2 Zoo	**8** Neyyar Wildlife Sanctuary	**14** Napier Museum
3 Padmanabha Swamy temple	**9** Kilimanoor palace	**15** Kerala Soil Museum
4 Kuthira Malika palace	**10** Anchuthengu backwaters	**16** Koyikkal Palace Museum
5 The Trivandrum Golf Club	**11** Varkala Cliffs	**17** Agasthyamala Biosphere Reserve
6 Ponmudi hills	**12** Kappil-Edava lakes	
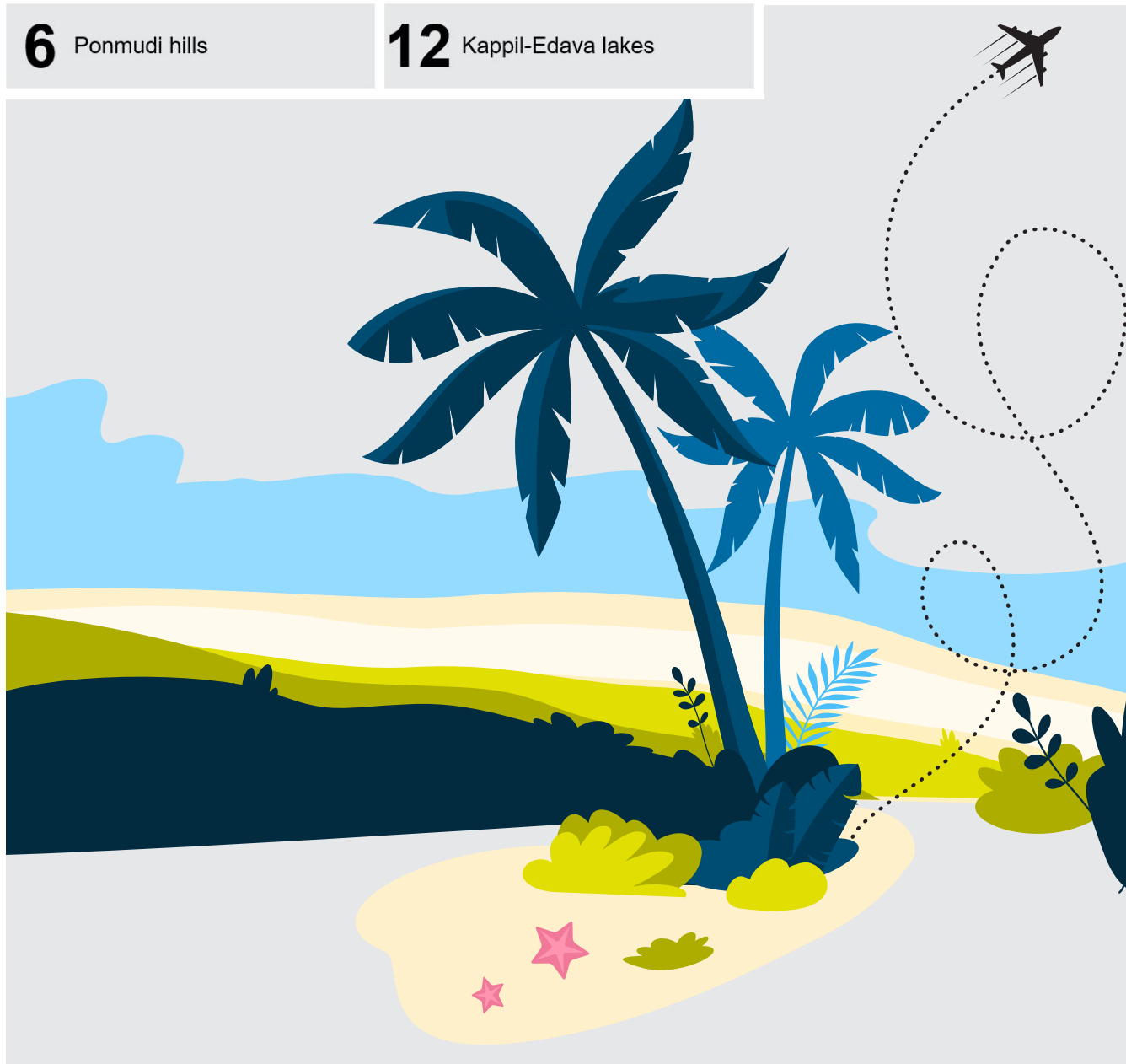
Improved Livability: City Benchmarks

1. Tokyo, Japan

- Tokyo manages to do something no other global metropolis can. It provides a great quality of life for those who live there and also visit. From culture to security, food to courtesy, it has everything covered. It's true that the city provides a plethora of positives; many of the qualities that make the city a great place to live also make it a fantastic place to visit

- Key Features include: Public Transport, safely, Convenience and low cost of living

2. Vienna, Austria

- Vienna remains top city for livability

- The Austrian capital Vienna is a perennial champion of these popular annual listings of places said to boast a notably enviable quality of life, based on factors like safety, health and education scores, access to transit and green space, cultural amenities, cost of living, and so forth.

- The motto of the city is that 'A city that is good for children is good for everybody'

3. Melbourne, Australia

- Australia has identified three key areas of action for improved livability: investment in public transport, access to green space; and providing affordable and diverse housing.

- The city is known for safety, attractiveness, social cohesion and inclusivity, environmental sustainability and affordable and diverse housing linked by high quality public & active transport

4. Vancouver, Canada

- In Vancouver, urban planning focuses on livability. That means creating a city of neighbourhoods where people can work, play, and shop.

- The city focuses on creating communities that prioritize sustainable modes of transportation

- Facilitates high-quality urban design that contributes to an attractive, functional, memorable, and safe city

- Incorporates parks and open spaces, sidewalks and walkways, bodies of water, trees, landscaping and lighting into our urban fabric

1. Tokyo world's most liveable city: Four reasons this city is the best, Traveller, https://www.traveller.com.au/tokyo-worlds-most-liveable-city-four-reasons-this-city-is-the-best-gi6vs5,
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3. Planning a liveable, sustainable city, City of Vancouver, https://vancouver.ca/home-property-development/urban-planning.aspx,
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Projects wishlist

Thiruvananthapuram as a medical hub	Integrated Tourism Development	Promoting agriculture, safe to eat farming, and food processing
Making Thiruvananthapuram a sports and activity hub	Disabled friendly public spaces and barrier free pedestrian areas	Establishing a high court bench in Thiruvananthapuram

Enhanced healthcare delivery – Thiruvananthapuram

1. Thiruvananthapuram as a medical Tourism hub

Preferred Funding mode		Impact
Government	✓	High
IFIs		
Private	✓	Medium
CSR		

Goal

Making Thiruvananthapuram as the leading medical hub in South India across all the forms of medicine thereby making Thiruvananthapuram as the world's premier holistic healthcare city

Objectives

1. Become India's No.1 city in terms of medical tourism and medical care
2. Increase the number of incoming visitors for healthcare by multiple times

Initiatives

1. Building a comprehensive plan for promoting holistic healthcare in the city in order to attract different strata of population including those from other parts of the state, from other parts of the country, and from other parts of the world
2. Encouraging large private hospitals to focus on medical tourism to aid in economic development of the city
3. Use of Social Media for the promotion of the holistic treatment available in Thiruvananthapuram
4. Targeting NRKs for off-season treatments and targeting geriatric people for Ayurveda care
5. Creating an alternative healthcare centre of excellence which will form the basis for the medical hub
6. Leveraging super plans/strategies to attract patients from neighbouring towns for slow medicine and for palliative care
7. Becoming the centre of medical transplants
8. Creating a centre for researching and producing medicines based on rural knowledge/Ayurveda/Naatu Vaidyam
9. Focusing on upgrading/starting associated institutions which can play a major role in converting Thiruvananthapuram to a medical hub
10. The healthcare industry (both the public and private) should be able to cover more than the entire population of the city
11. The city should expand and make a provision to have a strong supply chain
12. Building a strategic plan for making the city a centrepiece for medical innovation
13. Articulation of policies to support new medical experiments, create start-ups and build online databases.

2. Integrated Tourism Development

Preferred Funding mode		Impact
Government	✓	**High**
IFIs		
Private	✓	**Medium**
CSR		

Goal
Making Thiruvananthapuram one of the world's tourism hotspots – clean, safe, and sustainable

Objectives
1. Make Thiruvananthapuram one of the top 25 places in the world (according to TripAdvisor) for tourism 2. Achieve a five-fold increase in the tourists visiting the district and ten-fold increase in the revenue 3. Achieve energy neutrality for the tourism industry in the district

Initiatives

1. Developing city into a heritage tourism site by restoring old palaces and other monuments
2. Branding of Balaramapuram Handloom and weaver's village as a major Tourist destination
3. Introducing water sports program and adventure tourism at suitable locations
4. Starting services such as cable car, seaplane etc. and Ensuring proper connectivity to all tourist attractions (like Dubai is connected to all tourist attractions by metro)
5. Driving ads through social media for promoting the tourism in the district and creating a Thiruvananthapuram page (just like the cities for Dubai, Singapore, Bangkok etc.)
6. Promoting Ponmudi as a centre for eco and adventure tourism; Taking steps to make Thiruvananthapuram a water tourism hub
7. Ensuring zero encroachments in all tourist spots
8. Creating a centre of excellence for tourism in the district that will not just promote tourism but also act as a feeder for building tourism related talent in the district; Looking at identifying and implementing value added services for tourism
9. Developing facilities in areas with tourism potential; promoting meetings, incentives, conferences and exhibitions (MICE) in the district to attract more corporate tourists
10. Creating a food-based tourism walk especially across key tourist destinations
11. Promoting Thiruvananthapuram as an Ayurveda tourism hub across India and the world
12. Creating a water sports centre of excellence in the district
13. Promoting heritage tourism/heritage walks across the district
14. Improving international tourism with strategic planning and regular monitoring of activities
15. Improving the communication strategies and setting up round the clock information centres in the main travel centres
16. Promotion of traditional art forms will help in the development of the tourism
17. Government should implement an Annual Tourism Infrastructure Fund
18. Improving current management and infrastructure to deliver a safe and high-quality visitor experience
19. Improving current management and infrastructure to deliver a safe and high-quality visitor experience

3. Promoting Agriculture, Safe to eat farming, and Food Processing

Preferred Funding mode		Impact
Government	✓	High
IFIs	✓	
Private	■	Medium
CSR	✓	

Goal
Transforming the food our district produces and consumes – so that it is safe to produce and consume along with making Thiruvananthapuram a hub for food processing across India

Objectives
1. Ensure food consumed by people in district is grown inside district and is organic 2. Ensure an increase in agricultural land yield

Initiatives

1. Taking steps to increase the number of food courts in the district which are open 24X7 and which are made from organic foods
2. Bringing in the land ceiling act to enable any kind of cultivation and not limit them to planation corps like rubber
3. Creating a food manufacturing corridor for small scale food processing units
4. Forming a task force consisting of residents that will inspect the food processing units in the district and rate on different parameters related to safety and hygiene
5. Giving emphasis to modern, scientific hydroponic farming methods
6. Working with the agricultural institute & resident's association & promoting initiatives like 'A Farm every house'
7. Forming an SEZ in the district for food processing and constructing a food park
8. Promoting small scale dairy farming, poultry farming etc. by creating awareness and providing land
9. Creating a digital app that will help farmers buy and sell without the need for intermediaries
10. Promoting food storage units across the city (especially in view of the upcoming port)
11. Forming a centralised model, yet decentralised centres for collecting agricultural and food waste and converting it into manure where applicable
12. Leveraging technology (like Blockchain) to trace the food supply chain
13. Promoting 'Made in Thiruvananthapuram' food products and GI tags for food products wherever possible
14. Creating a corridor for agriculture – small areas with high yields; Transforming the Velayani Agricultural College to international standards; Inviting corporates to set up their food processing units in the district
15. Promote sustainable agriculture practices and organic food production
16. Government to initiate flexible policies with respect to land, use of fertilizers, subsidy etc.

4. Making Thiruvananthapuram a Sports and Activity hub

Preferred Funding mode		Impact
Government	✓	High
IFIs	■	
Private	✓	Medium
CSR	■	

Goal

Converting Thiruvananthapuram into a sports and activity hub which is known across the world as a city of sporting excellence and attracts people from around the world

Objectives

1. Make at least one sports institute in the district to be one of the best 25 sports institutes in the world (by 2025)
2. Ensure people visit the district for sports related training and Y people visit the district for activity related tourism and ensure an increase in revenue from sports and activity tourism
3. Make Thiruvananthapuram is the best in the nation as a centre for at least one sport
4. Ensure one of the stadiums in the district is recognised as one of the top 5 in the country by approved rating agencies
5. Making Thiruvananthapuram the nation's best hub for sports for disabled

Initiatives

1. Attracting an IPL team with Thiruvananthapuram as its home base/Creating an extended hub for Kerala Blasters
2. Taking focused approach to bring sports brands like Decathlon to the city
3. Enhancing the sports universities in the district to become like the IITs of sports
4. Enhancing other sporting facilities like shooting range, swimming pools to international level and give it as a place for learning and training
5. Promoting home grown sports clubs and helping them achieve recognition at the international level (through events and training) and Encouraging the Kovalam Football Club & supporting building a home ground for them
6. Promoting Thiruvananthapuram Marathon and Thiruvananthapuram Cycling Model and create a unique theme for the same focusing on the nature and heritage of the district
7. Creating a tie-up with foreign sports universities for the sports schools in the district
8. Creating adequate sports infrastructure and raise the standard of sports in the State
9. Promoting rural games and adopt maximum disciplines of the Olympic Games to transform Thiruvananthapuram to a sports hub
10. Creating a program that will promote the best coaches to move to Thiruvananthapuram

Initiatives
11. Creating an annual talent hunt which will look at finding the hidden talent across the district
12. Creating a centre of excellence for physical training, and sports rehabilitation.
13. Promoting sports for disabled and make Thiruvananthapuram a hub for the same
14. Creating more indoor sports avenues across areas such as malls

5. Disabled friendly public spaces and barrier free pedestrian areas

Preferred Funding mode		Impact
Government	✔	High
IFIs		
Private		Medium
CSR	✔	

Goal
Creating a city that is equal for people – in terms of gender, ability, needs, and age while ensuring that pedestrians as well as motorists can travel from one place to another without any obstaclea

Objectives
1. Ensure 100 percent of footpaths in the district are disabled friendly
2. Ensure 100 percent of public spaces in the district are disabled friendly
3. Ensure 100 percent of touch points in public spaces are disabled friendly
4. Make sure Thiruvananthapuram is one of the top 10 cities in the world for the disabled

Initiatives
1. Forming a statutory body under the corporation with the participation of Institute of Architects that can plan and develop the infrastructural capabilities of the city in line with this goal
2. Building ramps, necessary handrails, and tactile tiling across all the foot paths and public spaces which will cater to all disabled people
3. Ensuring standards for street furniture according to the needs of people with disabilities
4. Publication of a design guidebook made for the purpose of providing architects and designers with the basic information and data necessary for a barrier- free environment
5. Esuring the following: a. Zero illegal flex boards and hoardings which lead to the blockage of roads b. No encroaching of footpaths by roadside vendors or shops c. Levy penalties in case of illegal encroachment of footpaths

6. Enhanced Healthcare Delivery

Preferred Funding mode		Impact
Government	✔	High
IFIs	✔	
Private	✔	Medium
CSR	✔	

Goal
Making available high quality, specialised, holistic, affordable healthcare (including preventive and curative facilities) for all the people of Thiruvananthapuram which is within a short distance from every household and which will enhance the overall well-being of the people of Thiruvananthapuram

Objectives

1. Access to care –
    a. Ensure 1 PHC within 15 minutes of every home
    b. Increase performance across other parameters such as beds per population, specialities per population etc.
    c. Access to affordable healthcare for 100 percent of population
    d. Ensure easy access to healthcare facilities
 2. Wellness
    a. Improvement of key wellness and health parameters (including factors such as reduction in maternal and infant mortality rate, errors due to avoidable factors etc.)
    b. Increase the life expectancy in the district of Thiruvananthapuram
 3. Excellence of medical care
    a. Presence of a health care institution that is in the top 5 across the nation
    b. Presence of a centre of excellence for all major areas of healthcare

Initiatives
1. Creating a secure database which will store the required details of all the individuals at a ward level to ensure proper delivery of health care services in a proactive manner and tagging all health records to the same in an electronic mode   2. Leveraging technologies like AI, and Big Data to predict the onset of diseases which will be possible with the e- Health program   3. Creating a three-tiered health system where the primary level will focus on regular treatments and preventive and home care treatments; secondary level will focus on super specialities; and tertiary level where the need for treatment is highly specialised and implement a mechanism in which the referral to each tier is strictly monitored

Initiatives

4. Creating and executing a master plan for Thiruvananthapuram Medical College to be implemented in a time bound manner

5. Developing an infectious disease centre of converting the existing centres in the district to international standards

6. Ensuring PHCs have all diagnostic facilities

7. Launching a health card for a single family which will be used for delivering health services (like ration card)

8. Building a new super specialty Medical College under PPP mode

9. Upgrading primary health care centres

10. Launching a program/drive that will address the issue of quacks in the district

11. Developing holistic hospitals and promote traditional medicine forms such as Ayurveda and Homeopathy

12. Developing training centres for enhancing the skills of health-care professionals

13. Enhancing the connectivity to the major healthcare centres via public transport

14. Enhancing the quality of PHCs
    a. Extension of timing of PHCs (if required by leveraging the infrastructure of private hospitals)
    b. Add a yoga/wellness centre to each PHC
    c. Eliminate doctor shortage in PHC by collaborating with private hospitals
    d. Decentralise the medicine procurement to reduce shortage of medicine at PHC level
    e. Launch bike ambulances at PHC level and Create palliative centres at PHC level

15. Creating a mobile health delivery system
    a. Create the mechanism of online delivery of medicines (even using autos/taxis)
    b. Implement 'Hospital on Wheels'/Ambupods
    c. Launch and institutionalise a 'Mobile App' based health care delivery service (similar to the one in Estonia) and can act as the single point of health care delivery services from hospital consultation to medicine delivery

16. Enhance the tele-consulting facility
    a. Preventive Wellness Care
    b. Ensuring 100 percent cleanliness across the city
    c. Diabetes, Blood Pressure early
    d. Implement mandatory insurance program
    e. Promote wellness programs to enhance the health of the people in the city (this includes creation of jogging areas, cycling paths, open gyms etc.)
    f. Create awareness programs that are the cause of the majority of the deaths and accident induced disabilities Increase the strictness of checking food, diet, and sanitation across the district through a uniformed task force

04

# Vision implementation framework:

Development council and branding

Implementation framework

The vision has set clear and measurable goals across different sectors to achieve this holistic development. The vision implementation framework proposes a design or plan for how the vision developed for the capital city needs to be implemented. The framework gives a layout which details out the composition of the Development Committee with stakeholders from the government, industry bodies, management forums and local government group, and the tasks which would be undertaken by the stakeholders. The implementation framework also details out the various key pillars that would be in focus while implanting the vision development. The framework also lays down the provision of taking regular feedback from public, social organisations, elected representatives and scholars at various meetings and gatherings.

The below image gives the detailed implementation framework for the Vision
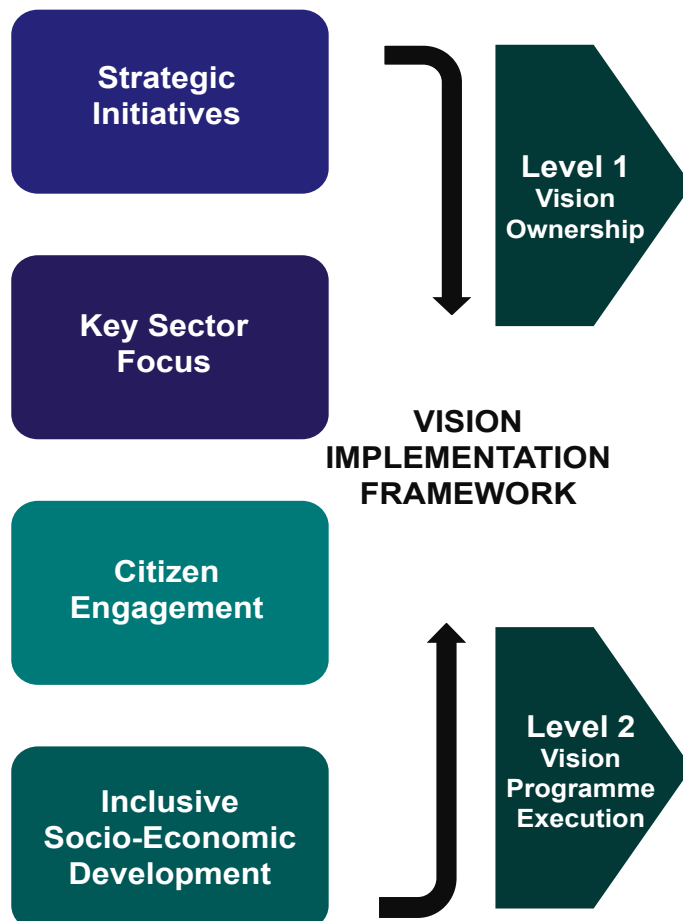
Development of Thiruvananthapuram. The entire vision will be implemented with the help of two levels of representatives. Level 1 is termed as 'Vision Ownership'. In this level a vision development committee is proposed. The committee would largely cover a range of jurisdictive and functional activities including strategic planning, representation, advocacy, policy development etc. Level 2 is termed as 'Vision Programme Execution'. At this stage, the Vision Implementation Authority will undertake the following activities:

- Setting up a project monitoring unit to monitor and oversee the implementation of the vision
- Developing an outcome-based framework to assess the success of the vision strategies and monitoring the same taking into consideration citizen feedback as well
- Coordinating and conducting regular meetings of the vision development committee

VISION IMPLEMENTATION FRAMEWORK

Strategic Initiatives

Key Sector Focus

Citizen Engagement

Inclusive Socio-Economic Development

Level 1 Vision Ownership

Level 2 Vision Programme Execution

Vision 2025 Development Committee

Composition
Convener – District Collector
Chairmanship – Mayor
Synergy council of Members – Department representation from key sectors such as Infrastructure, Tourism, Ports, Industries, etc.
Representation from Industry Associations

Composition
The committee shall convene once every quarter to discuss, identify, and recommend best practices to set the overall directions and goals for the implementation and success of the vision. In order to achieve the state's vision targets, a high level of coordination and synergy among all the aspects of vision delivery is paramount. This is where the synergy councils have a role to play. Its main aim shall be to identify and describe potential synergies between areas common across various phases of development. The councils shall also aim to strengthen the forward and backward linkages to ensure inter-departmental synergy for multiplying the outcomes and reducing time lag in delivering results.

Vision Implementation Authority (VIA)

Composition

Advisory Body | Implementation Body

What will they do?
A dedicated City Development Authority is to be set up which shall be led by a CEO and be responsible of the recommendations of the vision document. The VIA shall co-opt members/organizations from private sector/N-GOs/Academic and Research Institutes to provide guidance on various vision initiatives . VIA shall:
- Set up a project monitoring unit to monitor and oversee the implementation of the vision
- Develop a outcome based framework to assess the success of the vision strategies and monitor the same by incorporating citizen feedback as well

Building Brand Thiruvananthapuram

As a part of the Vision Development of the capital city it is essential for Thiruvananthapuram city to build a brand identity similar to that of Bengaluru, New York, London and Amsterdam. This initiative will help leverage Thiruvananthapuram's identity better and create a brand value that could, in turn, stimulate the economy and make the city even more popular. Brand building of the city involves four key focus areas which are brand creation, brand implementation, brand monitoring and brand revitalisation.

Brand creation

- Brand objective
- Brand design
- Brand strategy
- Brand targets

Brand implementation

- Brand release
- Brand promotions
- Brand awareness program/campaigns
- Customer specific campaigns
- Key partnerships
- Grow brand image
- Stakeholder interactions/ consultations

Brand monitoring

- Performance of brand
- Strategic brand targets
- Impact assessment at regular intervals through brand tracking surveys
- Usage across appropriate channels
- Keeping the brand fresh by maintaining momentum
- Detect any changes in consumer tastes or loss of brand traction

Brand revitalisation

- Need for rebranding or brand refreshment by Identifying need for any changes to the brand
- Constant analysis of market trends

Supported by a Brand Steering Group

Brand-building paves its way through various avenues of growth. Some of the key avenues include things, places, events, people, business, sports, academic institutions and partnerships. A well-planned execution of the key focus areas is important for the branding of the city. A detailed action plan for branding the capital city is as given below.

01 — **Brand Design**
Brand logo, tag line and targets finalisation

02 — **Brand Merchandise Design and Development**
Outsource merchandise design to third party vendor

03 — **Brand Launch Event**
Brand launch event making a mark. Event in line with the Theme of the Brand inviting artists and art lovers to come and paint their views and experiences in Thiruvananthapuram

04 — **Souvenir shop at Airport**
Preparation of project execution plan and inauguration of shop

05 — **Selection of Brand Ambassadors**
Selection of key celebrities, leaders or personalities who are associated with Thiruvananthapuram and have a worldwide fan base

06 — **Brand Promo campaigns – Domestic and International**
Design of Brand Promo campaigns – Domestic and International Campaigns

07 — **Brand Promo campaigns – Domestic and International**
Brand Promos Kick-Off

08 — **Advertising Platform**
Forming a team to handle advertisement offerings of Brand Thiruvananthapuram, selection and finalization of offerings locations, marketing and promotion activities, pricing etc

09 — **Marketing Partnership Programme Phase- I**
Identification and shortlisting of potential partners across all categories

10 — **Marketing Partnership Programme Phase- II**
Executing MoUs, Franchisees, Partnerships agreements with domestic partners in select states and International Tourism Locations

11 — **Marketing Partnership Programme Phase- III**
Launching specific packages/customized offerings with selected partners

12 — **Brand Performance Monitoring**
Conduct brand tracking surveys, monitor usage across channels

13 — **Rebranding**
Conduct market research studies to understand changes required for the brand. Brand Steering group meeting to discuss on rebranding/brand performance evaluations

The vision development document for Thiruvananthapuram, key for the growth of the city, is a strategic tool into which collaborative techniques are incorporated and employed with the aim of improving the city on a whole. This is a recurring exercise which will be undertaken once in every four years. Along with the development and implementation of the vision, this exercise also involves recording the feedback from the citizen and it acts as a major parameter to assess the progress on vision implementation.