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ANALYSIS REPORT ON INDIAN INFRASTRUCTURE SECTOR (NOVEMBER 2021 EDITION)

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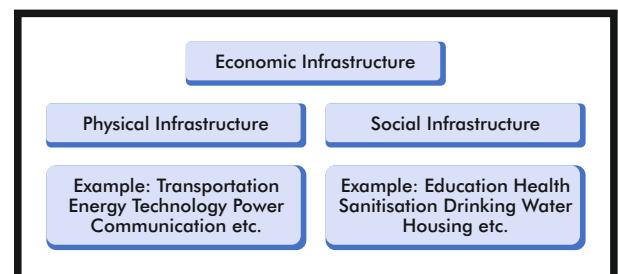
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1. Introduction

Infrastructure is the key driver of growth for any economy and thus it is the golden key for India's economic development too. Based on its highly responsive nature towards the overall development of the country the sector draws an important and sharp focus of the Indian government along with private and foreign players. The initiation of infrastructural projects in the country in recent times is getting its momentum and drawing the desired effect as the government is committed to the time-bound delivery of such projects and providing policy support at each step.

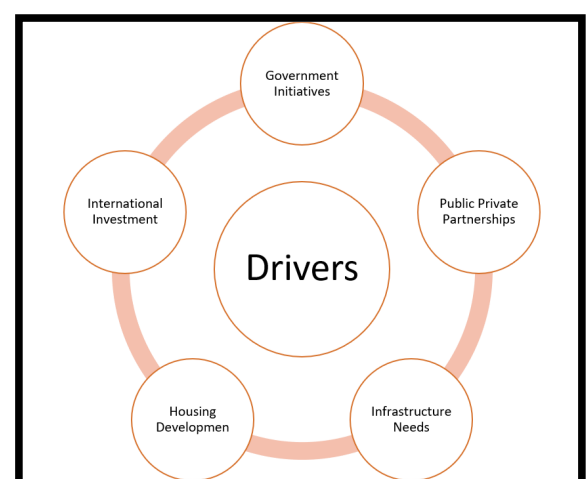
The people of India are witnessing a golden era of holistic world-class infrastructural development in the country that touches each sector of the economy like Roads, Railways, Airways, Bridges, Dams, Power, Urban Planning, etc. In the broad classification economic infrastructural development of the country can be understood under two horizons:

The economic infrastructure development can not only speed up economic growth but also work for poverty eradication, a sustainable environment, higher employment opportunities, and the well-being of citizens. It works as a foundation stone for any country and thus it is equivocally important for India to work for the planning and development of India's infrastructural roadmap. A good infrastructure will provide exponential impetus to the economy and trade of the country while escalating the growth of common Indian masses. As the infrastructure projects do not work in standalone mode, the forward and backward linkages are equally important to reap the inclusive benefit of infrastructural growth. This is the thread to connect the production, distribution, and end-users to accelerate the economy at the optimum pace.



The economic infrastructure works as a pillar for the development and higher productivity of the nation. But to infuse capital into such mega infrastructure projects in a vast and developing country like India is a big challenge. The government of India along with the Reserve Bank of India plays a pivotal role in financing such projects and implementing various reform from time to time to boost the growth in the sector.

The PPP model also accelerated the growth of this sector at a whooping pace and addressed the financial constraints in the right way. But still, there is a huge gap between demand and the supply side in this sector and thus the sector needs to introduce innovative business and financial models to address the issue. This will help in extending the support of private players in the growth of the sector and tap the major investments towards the growth of the country through regional connectivity through various corridors, parks, economic zones, etc.



2. Governance Structure and Growth Drivers

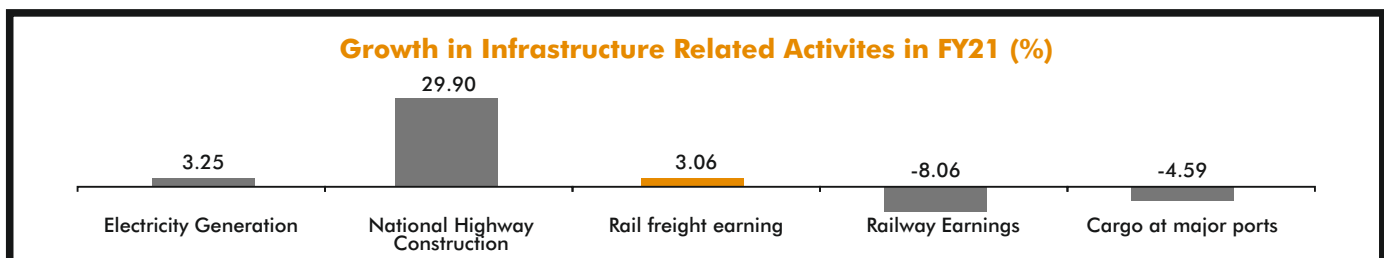
The Government of India is working rigorously to provide world-class infrastructure in the country in every domain and for this purpose, it closely works with State Governments, the Private Sector Players, Autonomous Agencies, etc. The various ministries under the Government of India work together to implement the mega plan of infrastructure development in the country.

Governance Structure for Infrastructural Connectivity

Central Ministries	Other Organization
<input type="checkbox"/> Ministry of Road Transport Highways	<input type="checkbox"/> National Highways Authority of India
<input type="checkbox"/> Ministry of Railways	<input type="checkbox"/> National Highways Logistics Management Limited
<input type="checkbox"/> Ministry of Ports, Shipping and Waterways	<input type="checkbox"/> Lands Port Authority of India
<input type="checkbox"/> Ministry of Civil Aviation	
<input type="checkbox"/> Ministry of Housing and Urban Affairs	
<input type="checkbox"/> Ministry of Commerce through Department to Logistics	
<input type="checkbox"/> Ministry of Department of North-Eastern Region	

Due to the interdependence of many Ministries and departments and the strategic importance of infrastructural development, many opportunities are present in this sector for various stakeholders. Thus, the government has also eased the governance procedure to attract domestic as well as international investment in the sector. The single-window clearance facility for the infrastructural projects is one of them to speed up the approvals of construction-related projects and give unprecedented impetus to the sector.

The recent trend in the rise of infrastructural development in Transport, Electricity, Power, Housing, and all allied sectors are seconding the growth with major private investment deals in the power and renewable energy sector including road transportation.



Some of the major growth drivers for the Indian Infrastructure Industry are marked as:

- **Rising Population**

The rapid development of infrastructure is one of India's major requirements to support the needs of its rising population. Thus, it provides major growth opportunities in Housing, Energy, transportation, and other such areas.

- **Increasing Size of Economy**

As India became the fastest-growing developing economy, it is important to boost its infrastructural facilities to support the smooth functioning of the same. The infrastructure is the wheel of the growth engine of the Indian economy and thus plays the leading role to support the future development of the country in all aspects.

- **Rapid Industrial Development**

Industrial development along with machinery needs strong infrastructural support in terms of connectivity and supply chain linkages. This requires an ecosystem to develop and grow which includes energy, power, manpower, banking, etc.

- **Higher Employment Generation**

The sector plays a major role in employing skilled, semi-skilled, and unskilled laborers in the country. To reap the maximum benefit of our demographic dividend it's important to accelerate the infrastructural activities and increase the employment opportunities for our young generation which will also help in improving the mobility and efficiency of the laborers.

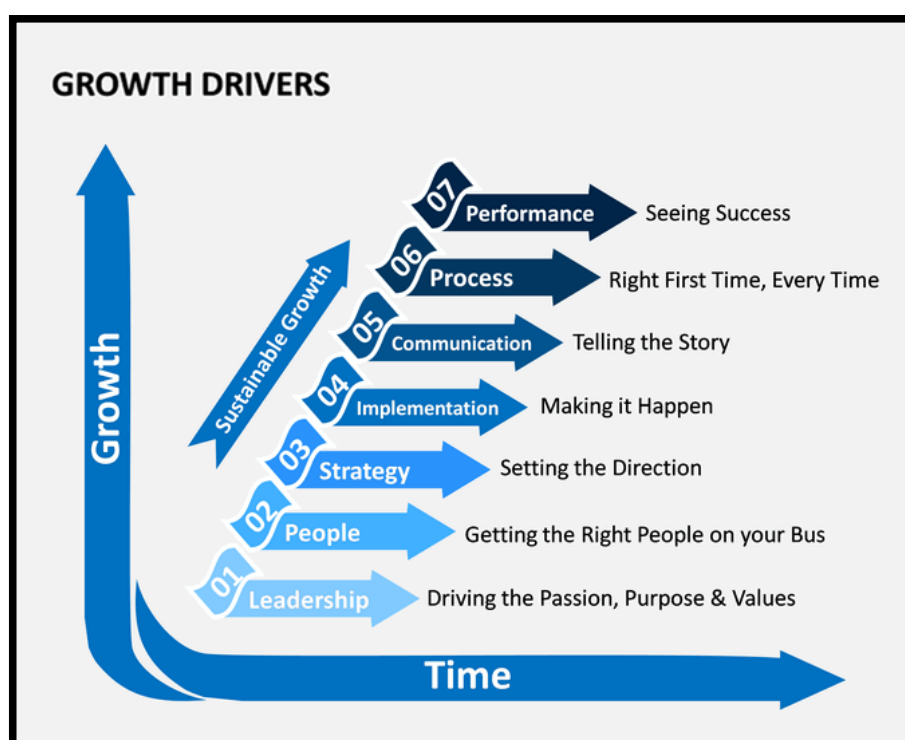
- **Improved productivity and Agricultural Growth**

The government's vision to double the farmer's income and provide high-quality input for the agriculture processes is providing major growth prospects for the agriculture sector but without the development of proper irrigation, connectivity, and power infrastructure all these efforts are in vain and thus provide the opportunity for the infrastructural development in this sector also.

- **Increased Focus on Regional Connectivity**

The government has a strong inclination towards addressing the regional imbalances in the country by connecting them through the rest of the country. In this aspect, improved connectivity through infrastructure availability plays a key role. Due to the lack of infrastructural connectivity still, many regions like northeastern and backward regions of the country are not able to reap the benefits of technological and social advancements in the country.

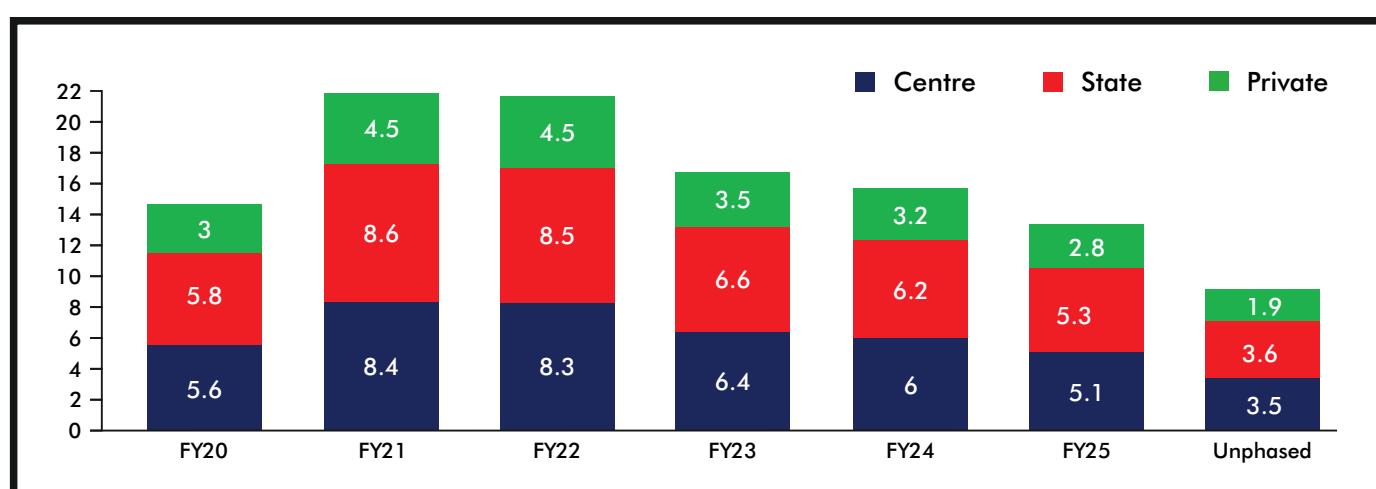
The increasing level of indigenous and state-of-art infrastructure projects like the Central Vista Project, Expressways, Atal Tunnel, etc, and the government's strong focus to increase private participation in the sector is keeping the growth of the economy on the right track. This all can effectively address the issues related to connectivity, mobility, power, energy, housing, etc over time and help in the growth of India as a nation.



3. Current Scenario and Development So Far

The government of India is allocating Rs. 111 Lakh Crore under the National Infrastructure Pipeline(NIP) for the financial year 2020-25 that will help in developing the advanced infrastructure in the country by facilitating social and economic infrastructural projects in the country. This also has the provision of spillover after 2025 in its projections. That will enhance the growth and competitiveness of the Indian economy at the global forum and create major linkages and employment opportunities during the span.

Annual Investment and Share of Funding Under NIP (In Rs. Lakh Crore)



The recent Union Budget 2021 allocation of Rs. 13.750 Crore to support the scheme like AMRUT Mission and Smart City Mission are also a great step in smart city development and housing for all initiatives. The recently unveiled Gati Shakti Master Plan for multi-modal connectivity will work to enhance the productivity of the infrastructural projects in the country and also address the wastage of resources and minimize the cost at large.

The road, railway, energy, and urban development projects in the country are expected to draw around 71% of the total infrastructural investment. The recent agreement between the Indian and Dubai government to develop an industrial park, Multiutility Towers, Logistic Centers, and a medical college in Jammu and Kashmir, is the beginning of the new era of infrastructural development in all the corners of the country.

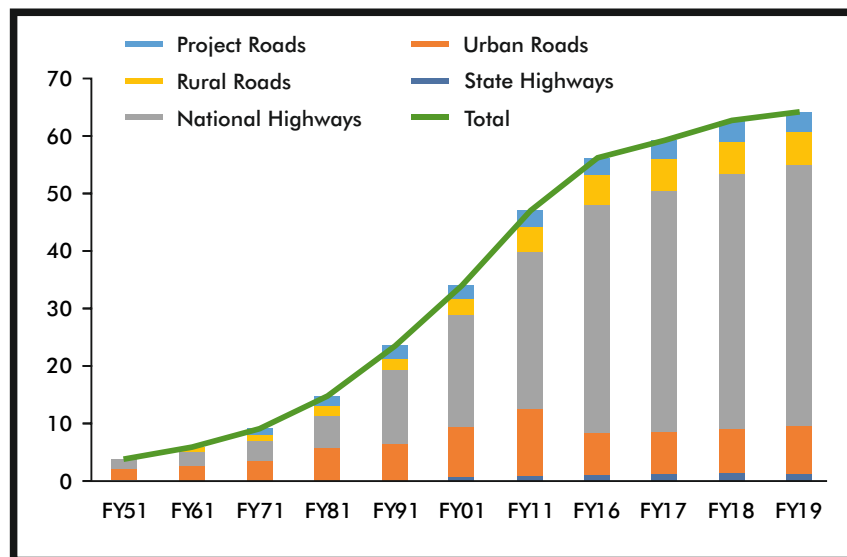
The development in the major infrastructure areas of the country to improve connectivity and mobility are:

- **Roads and Highways:**

In the current financial year 2021, the government has allocated additional capital to accelerate the development of roads and highways as these are the primary mean of connectivity in the country. Covid-19 has impacted the project execution in this regard but as the economy is coming out from the shock of the second wave of Covid-19, the completion of expressways, highways, and road construction projects are getting their pace. The collection on national highway tolls is also rising which is a good sign of the recovery for the economy too.

As per the recent data, the 11,500 Kms of National Highway Corridor along with additional 18,500 Kms National Highway work has been executed this year. Along with this the new highways and expressways are also been loaded with advanced traffic management systems with speed radars, GPS enabled Vans, and variable message signboards to improve road safety and connectivity.

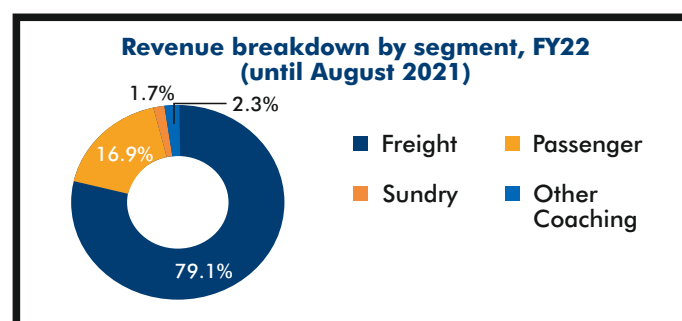
Road Network in India (In Lakh Km)



• Railways

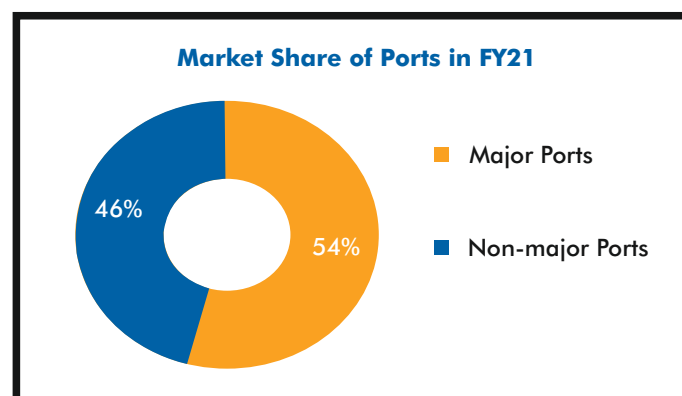
As per the allocation, under the Union Budget 2021, the Railway Ministry has been assigned Rs 110,055 Crore. The Ministry has also sowed the highest planned capital expenditure in the financial year 2021 which was around 215,058 Crore. To make the Indian Railway future ready, the Ministry of Railway has envisaged the National Rail Plan 2030 and working on priority to lower down the logistics cost with the help of the “Make in India” program such as the installation of cutting edge anti-collision systems in the high-density routes where they will help in reducing the manual errors during operation. By mid-2022 the eastern and western dedicated freight corridors will also get commissioned which will be monetized further for operations and maintenance purposes. During last year, the Indian Railway has recorded a sharp rise in freight transportation and proved to be the highest source of earning of the jumbo ministry.

The world's largest rail network is expected to run on 100% electricity by 2024 and create a robust net-zero emission network by 2030. The net electrification of the broad gauge network in the country has been reached 72% of the total network. The ministry is working rigorously to adopt advanced technology and modern systems for the safety of the travelers, introducing the Linke Hofmann Busch (LHB) coaches are one such example.



• Ports and Shipping

According to the data released by the Ministry of Ports, Shipping, and Waterways, India's 95% of trade volume runs through the maritime transport network, which is significantly high in number. The Indian ports are highly contributing in the external trades and as per the reports, the strategic key ports of



India is projected to furnish 7 major projects amounting to Rs 2000 Crore through the PPP model in recent time.

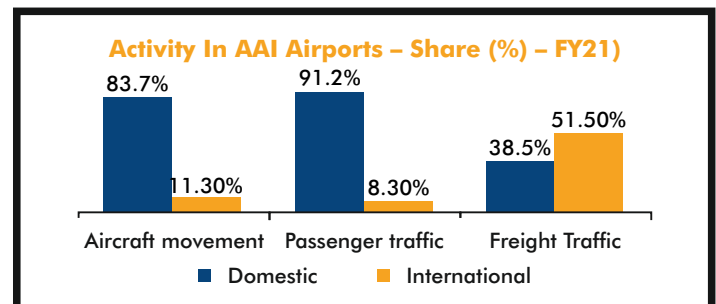
Under the ambitious Sagarmal project of the Government of India, the Ministry is planning to develop 12 major and 205 government notified minor and intermediate level ports around the Indian coastline.

- **Civil Aviation**

India is expected to be the third-largest aviation network by 2025 according to its fast pace growth in the sector. The domestic air traffic of the country has been more than doubled in the last 5 years accounting for 14 % growth annually between 2014 and 2020. Here the schemes like RCS- UDAN have played a major role. Despite the major setbacks during the pandemic, the Indian aviation sector has contributed significantly through the Vande Bharat Mission and rescued a significant

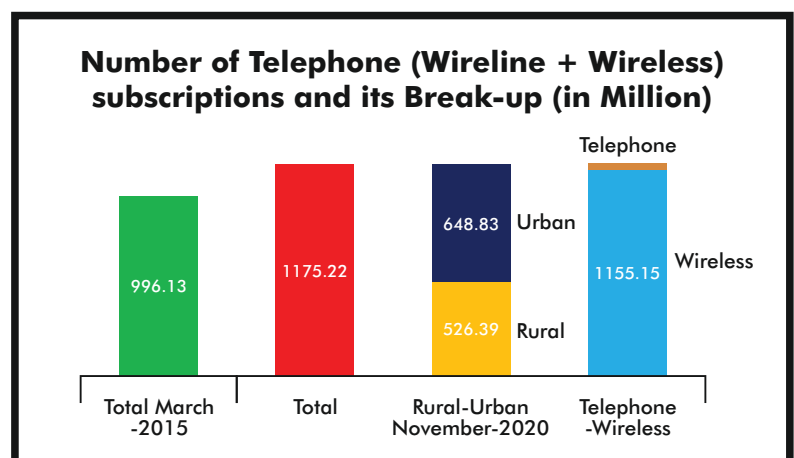
number of stranded Indians from all over the world. The rising number of domestic travelers is creating a new infrastructure push in the sector and thus expecting to cross the number of 1100 airplanes in the country by 2027. The construction of new international airports and the revival of existing airstrips are evidence of the rise

of demand for overall infrastructure development in the sector. Under NIP, the government is all set to develop 100 airports in the country by the end of 2024.



- **Telecom Sector**

The growing telecom infrastructure in the country is rightly addressing the digital divide in Indian society. The telecom sector is also providing impetus to the government's major social sector schemes through JAM-trinity and providing support in developing basic infrastructure for e-governance and digital India.



- **Smart Cities and Housing Infrastructure**

The government is working rigorously to create a robust infrastructure through smart city projects to cater to the needs of the rapidly increasing population sustainably. In this direction, the union government budget allocation of Rs 6,450 Crore has been set for the financial year 2021 to develop 5 smart cities, and accelerate modern urban infrastructure development. The government has also made a plan for creating “Freight Smart Cities” to help in generating a highly efficient urban freight system at lower expenses.

- **Power & Energy**

The power and energy infrastructure of the country plays a pivotal role in the economic growth of the country including power, non-renewable energy, and renewable energy sector. The

government has also created a master plan to develop the 500 GW renewable energy capacity by 2030. This will include the installation of large solar power plants along with railways tracks across the country and a major push to Hydrogen energy under the Ministry of New and Renewable Energy.

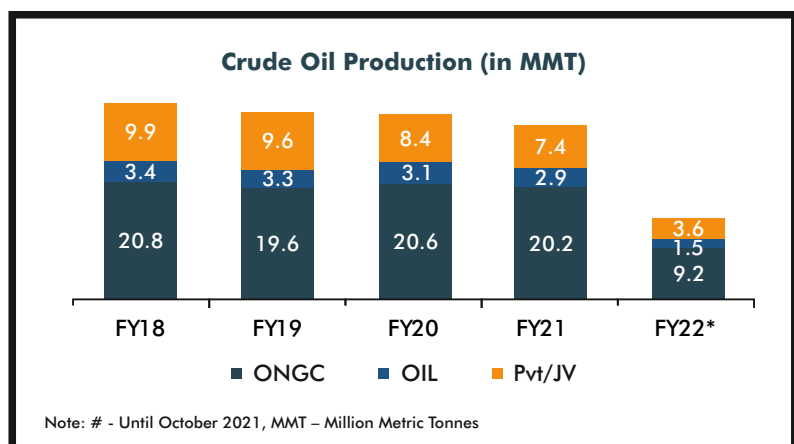
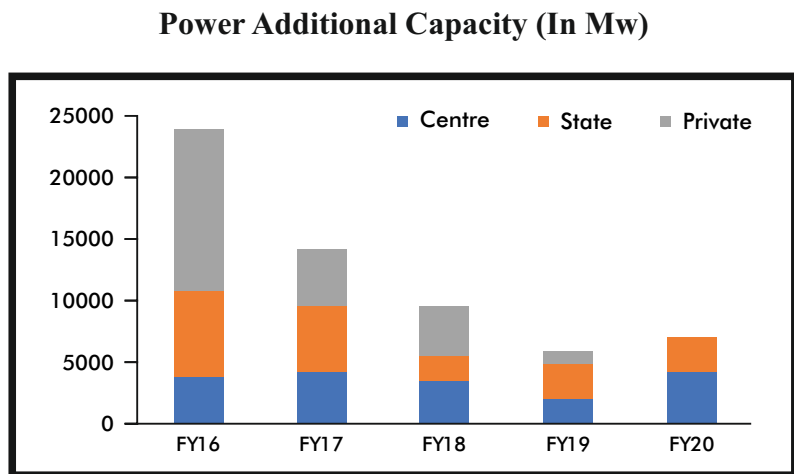
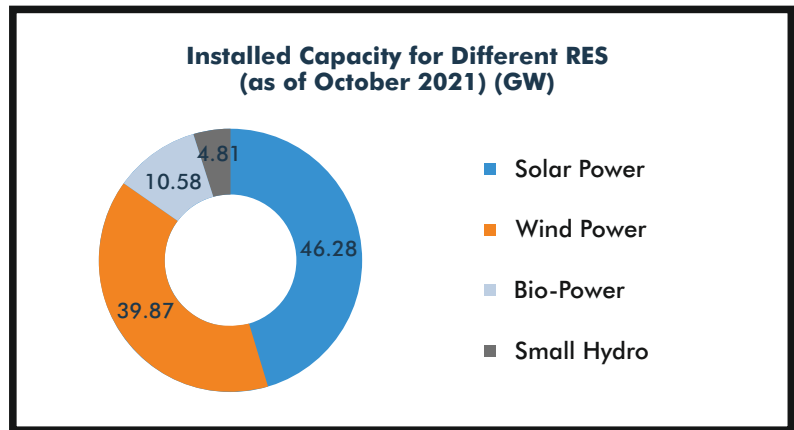
In the 2020-21 Union Budget the government has allocated Rs 22,000 crores to develop power and energy infrastructure through reforms in Discom, power, and renewable energy sector. Under the National Infrastructure Pipeline 2019-25 also, the projects related to the energy sector got the highest share and accounts for 24% of the total estimated capital expenditure.

• Oil & Gas

The government under the Open Acreage Policy (OALP), planning to create an exploration of 1.37 lakh Km² through the combined effort of public and private sector enterprises. They have envisaged a plan to expand the national gas distribution grid by 51% across the country. By looking at the high turmoil in the prices of crude oil, the Indian government is aiming to build new storage tanks and also working to revise the plan of increasing the refining capacity.

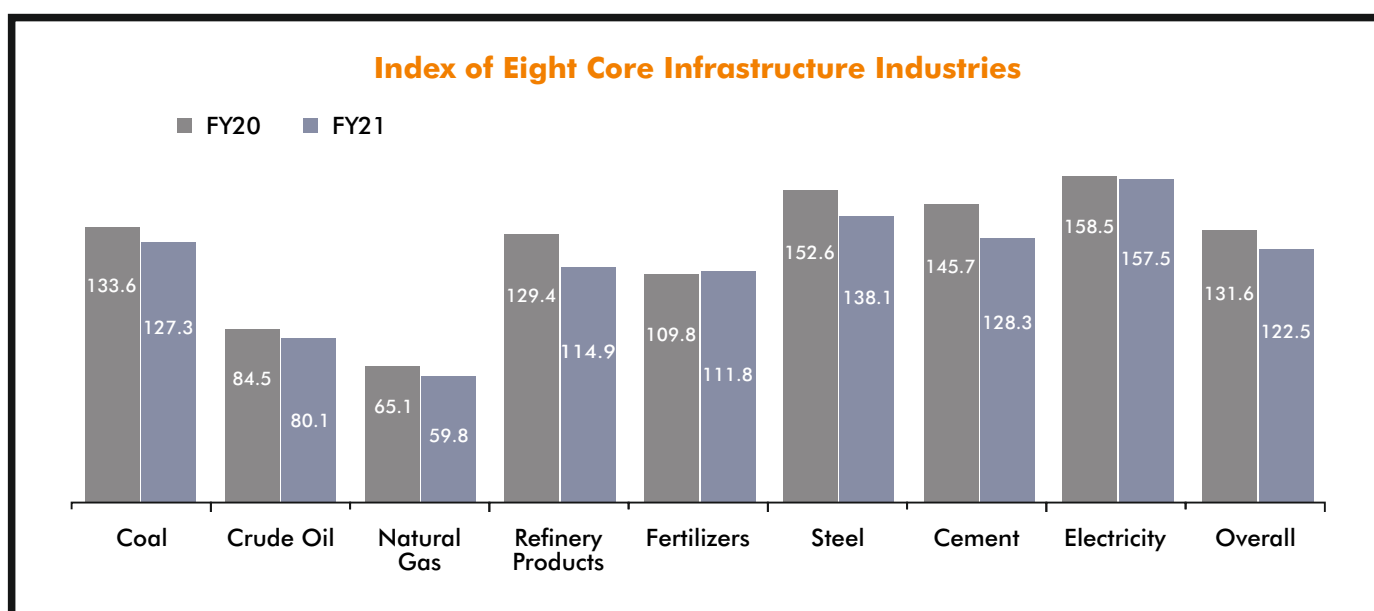
As a whole, there is strong momentum in the infrastructural development of the country, and in such a scenario the higher revenue generation by Indian Railways is the evidence of the fact and the balance yet healthy growth of all other sectors shows that the growth is in the right direction. While the Covid-19 has delayed many infrastructure initiatives, the government has planned to provide a holistic growth scenario to Indian infrastructure development.

For the same, recently signed an agreement with the Dubai government for the development of Jammu & Kashmir and the government's plan to setup an India- Japan Coordination Forum to provide a major push to the strategically important infrastructure development projects in the northeastern region along with the growth of the country.



4. Investment Opportunities and Financial Projections

Investment is the fuel for infrastructure development and in developing countries like India, it became more difficult to attract such huge investments because of the heavy financing procedures and long gestation period of these projects. But the rapid growth of population, industrialization, and economy together is creating a strong breeding ground for infrastructural development across the industries. This also in turn attracting huge private as well as foreign investment in the country.



Even the government is formulating lucrative policies to attract investment in the sector by easing out different FDI rules and regulations in the infrastructural projects related to construction development. The relaxation is also given in the lock-in period of such projects and there will no 3 years lock-in period for the construction development projects in the case of Hospitals, Hotels, and Tourist Resorts, etc. All these efforts have shown results and in the financial year 2020-21, 13% of total FDI inflow came in infrastructure-related activities only.

As per the Department for Promotion of Industry and Internal Trade (DPIIT), the FDI inflow in the construction development projects such as Townships, Housing, etc and construction related projects are higher in the last two decades. Looking at the ongoing infrastructural development of the country like Ganga Expressway, Purvanchal Express, Economic and Freight corridors, International Airports, the revival of airstrips, it is evident that the infrastructure sector is the focal point of growth for the Indian Government.

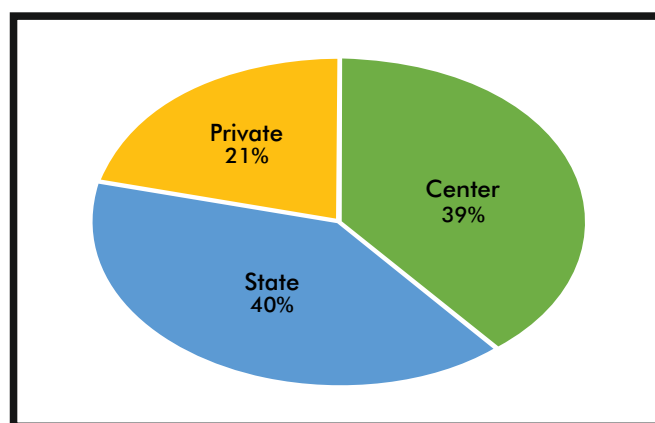
The government can exercise different methods to raise the funding for these projects and push the country's economic growth wheel. Some of these instruments can be Infrastructure Debt Funds, Tax-free Infrastructure Bonds, etc. The process may also be eased through the regulatory reforms such as the enactment of the Land Acquisition Act, Provision of Real Estate Bill, Increased role and authority of financial institutions in such matters, etc. Easing out the FDI rules further in other strategically important infrastructure areas like Defence, Railways, etc can also attract major investment and can provide impetus to the growth of these areas.

In the Union Budget of 2021, the government made a huge allocation of US\$ 32.02 Billion to fuel up the infrastructural development in the country in a sustainable way to cater to the diverse needs of the Indian people. This will not only cater to the needs of the general public but also provide them employment and other economic opportunities in their region.

Till July 2021, through the mega “National Infrastructure Pipeline” (NIP) the government has planned to invest US\$ 1.4 Trillion in infrastructural projects. The scheme will work between 2019-25 and will develop world-class infrastructure in the country to improve the lives of citizens. More than Rs 37 Lakh Crore investment will be made to upgrade the existing transportation system of the country including roads, rails, metro, airport, port, etc.

The Indian government's initiative to change the Hybrid Annuity Model which is resulting in higher asset monetization will help in boosting the projects related to Road Infrastructure development. This year, the government also introduced the bill related to the formation of the National Bank for Financing Infrastructure and Development (NBFID) to provide long-term finance for infrastructural projects which other commercial banks cannot provide due to the risk associated with such long duration projects.

Funding Distribution Under National Infrastructure Pipeline



It is clear, that the growth of the economy lies in the infrastructural development of the country and thus such development and investment plan will play a pivotal role in the development of each sector of the Indian economy and thus create higher revenue sources in the future along with the growth of trade and commerce. Through all these aggressive majors in the sector, India has evolved itself to provide infrastructure aid to other foreign countries like Afghanistan, Nepal, etc to develop their infrastructure.



5. Impact of Covid-19 and Safe Recovery Scenario

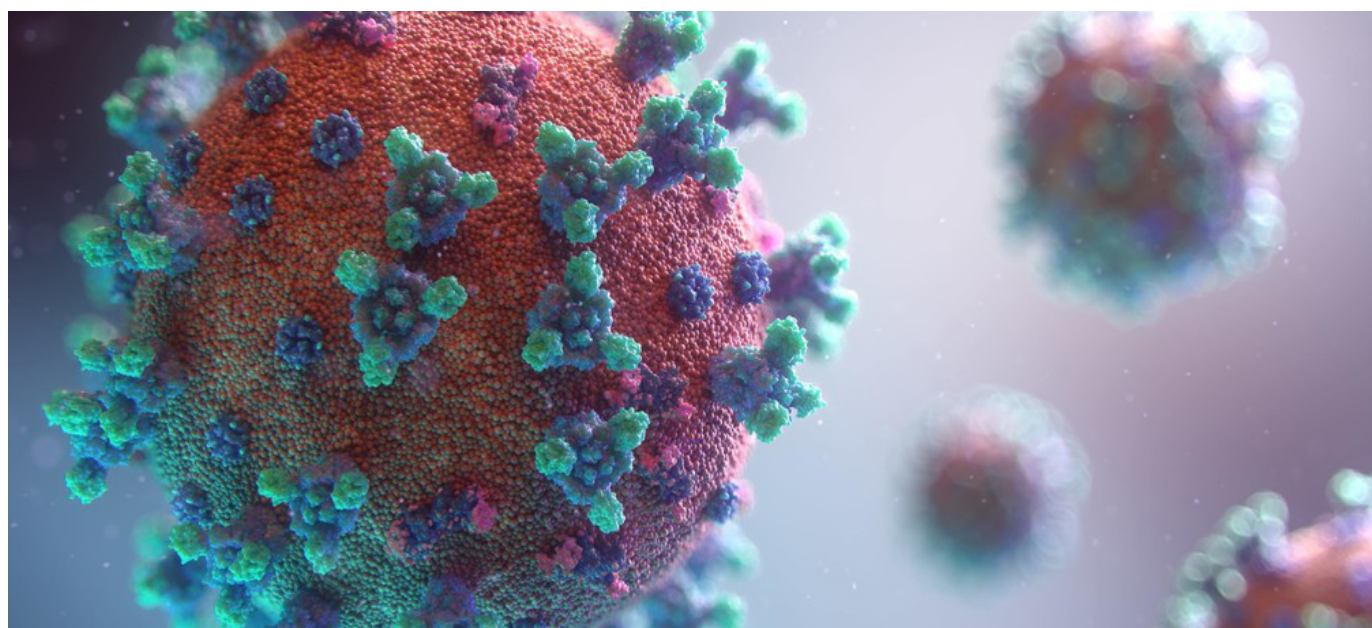
The Covid-19 has created an unforeseen impact on the world economy and thus the infrastructure sector of the Indian economy also faced unprecedented harm from this deadly pandemic. But from time to time measures taken by the Government of India have made the sector much absorbent to the shock.

Some of the welcome steps taken by the government during the pandemic are reducing the milestone limits of the infrastructure projects and releasing the payouts on a priority basis, increase in the concession periods for toll collection to compensate for the loss due to lockdowns, the extension of timelines of undergoing construction projects from 90-180 days, settlement of disputes of Government with contractors on priority basis, etc.

As the construction, real estate, and infrastructural projects mostly took place in the open areas, the enterprises were able to continue the work by minimizing the infection spread among the workers during such construction development projects. In this way, employment can also be made available for such workers in these tough times along with the infrastructure upgrade.

The government also gave a major push to this sector in the unlock phase also as the construction activities are one of those few activities which were permitted for operation in the first place. As the infrastructure sector creates huge employment opportunities for skilled, semi-skilled, and unskilled laborers in comparison to other sectors of the Indian economy if compared in terms of investment fed, it was thus relevant to give such importance to this sector during unlock.

In the time of crisis, through structural reforms, the government provided relief to all stakeholders involved in the infrastructure development of the country including the vulnerable and weaker section of the society. No doubt, the Covid-19 has created an unprecedented shock for the growth of the sector but the timely yet effective policy interventions from the government have shown the recovery path in the short span and provided a safe runway for the recovery.



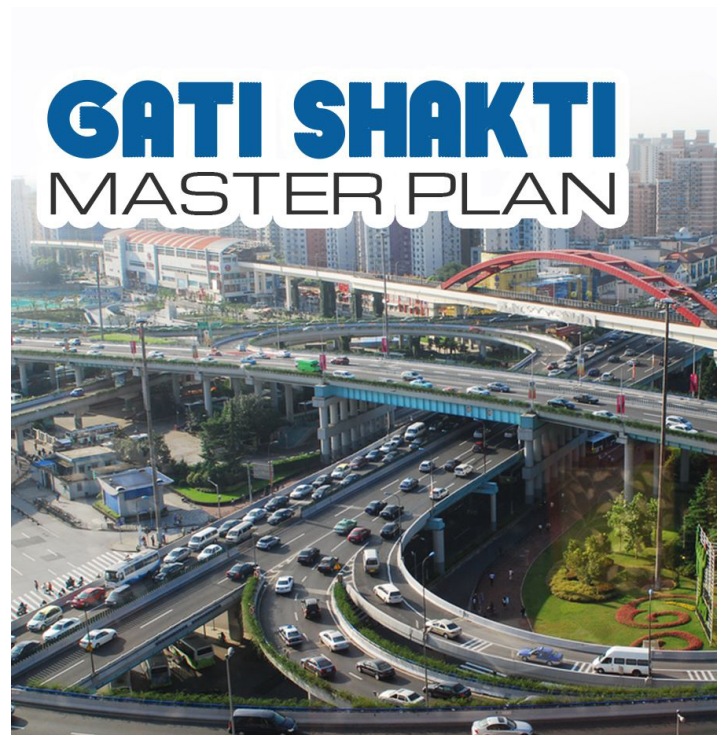
6. Government Initiatives and Policy Framework

The complexity of infrastructural development in a fast-growing country like India is a focal point of economic growth for the government. Thus along with the Reserve Bank of India, the Government of India is working rigorously to put the prudential reforms and policy set up to reap the maximum benefit for the country in this transit phase. When India is celebrating the 75th Year of its Independence, the government is also all set to push all the growth prospects in the right direction.

Some of the major policy initiatives implemented by the Government of India to grow this sector in recent times are:

- **Gati Shakti Project:**

The Gati Shakti project is the master plan of the government for infrastructural development in the country. Under this project, a geospatial technology platform will get launched to provide the coordinated planning and monitoring of different infrastructure projects such as gas pipelines, telecommunication networks, railways, etc. It will help in curbing the wastage of resources and wealth involved in such major projects and help the government to plan the development in a more systematic and synchronized way. This will put the foundation stone for India to develop a world-class infrastructure network for transforming India.



- **Bharatmala Pariyojna:**

It's an umbrella program under the Ministry of Road Transport & Highways to develop the highway infrastructure in the country. The scheme is focusing on developing the economic and freight corridors, Border Roads, Coastal and Port Connectivity Roads, Green Field Expressways, International Connectivity Roads for the smooth movement of passengers and freight. This will enhance the efficiency of the road transportation network in the country and optimize its use for the Indian masses.



- **Sagarmala Pariyojna:**

This program is the flagship scheme under the Ministry of Ports, Shipping, and Waterways. Through this, the government has a plan to develop the 7500 Km long India's coastline and take advantage of the port-led infrastructure development for trade and commerce. The scheme will help in reducing the logistic costs involved in export, imports as well as domestic trade.



- **Smart City Mission:**

The ambitious scheme was launched in 2015 by the Ministry of Housing and Urban Affairs to provide sustainable and clean cities to provide quality of life to Indian citizens living in these cities. Some of the core facilities which these smart cities will possess are adequate and clean water supply, 24*7 electricity supply, efficient and sustainable urban public transport system, solid waste management, affordable housing infrastructure for the poor, etc.



- **Pradhan Mantri Awas Yojana- Urban:**

This flagship mission under the Ministry of Housing and Urban Affairs was also launched in 2015 to provide Pucca house to economically weaker sections including slum dwellers to Low-Income groups and Middle-Income

group beneficiaries. As per the government plan, till 2022 when India will complete the 75th Year of Independence, the shortage of pucca houses for all these categories will be addressed.



Along with all these flagship programs, the government is working on developing the infrastructure across the industries such as textile, steel, cement, etc. The well-planned policy interventions are taking place and thus keeping India rock solid even during the pandemic. The government's mandate for the timely completion of the projects is to save the capital expenditure and create employment opportunities is one of the essentials for the growth of the sector and economy. In the same direction, the Government is all set to write the future growth story of the country through the National Infrastructure Pipeline project to provide sustainable infrastructure development in the country by 2025.

7. Conclusion

The development saga of India's infrastructure is getting exciting with each policy intervention and investment made through the Government of India or Private Infrastructure Giants. As the infrastructure is the backbone of any country, thus this will scale up the economic growth in the coming future. The upward growth trajectory and time-bound completion of infrastructure projects are the witnesses of sustainable infrastructure development in the country.

The growing trend of investor-driven initiatives and higher adoption of the PPP model in the infrastructure sector is also addressing the problem of financing in the sector and bridging the gap significantly. The e-governance, e-auction, and the programs such as "Digital India" also provide a robust governance structure in the country to eliminate red tape practices from the sector and increase transparency and efficiency by minimizing the complexities.

All this together framing a progressive picture of the Indian Infrastructure sector where all the stakeholders such as citizens, government, investors, etc will reap the benefits in the long run, and the country will witness the world-class sustainable infrastructure across the Indian territories.



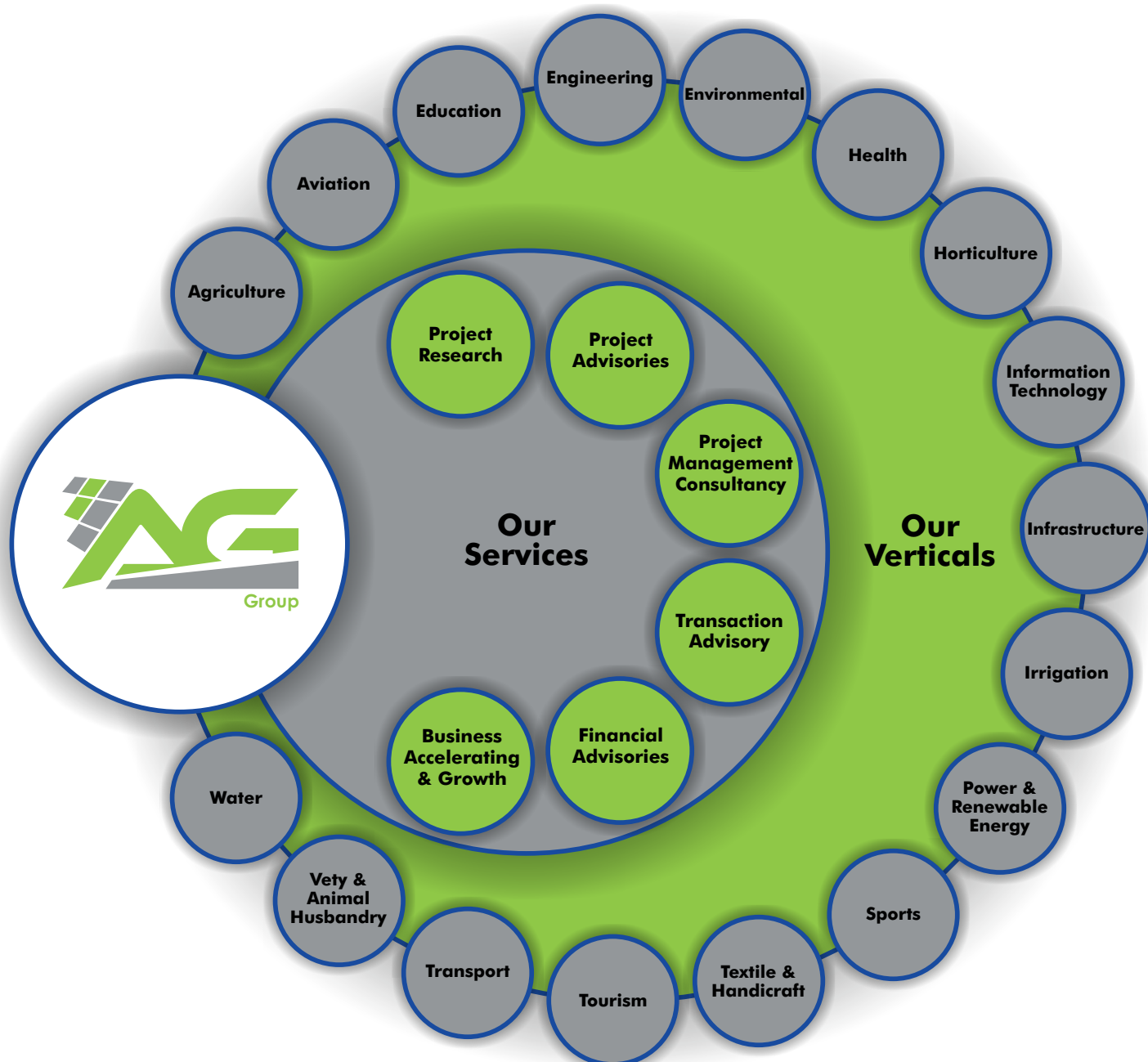
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AG Group

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