REGULATING INFRASTRUCTURE DEVELOPMENT IN INDIA

Kashish Soni[*] *& Priyanka Meena*[**]

INTRODUCTION

Adopting safety standard while developing infrastructure is one of the mere element of ensuring a safe built environment. Time-varying factors coupled with geographical consideration take the notion of safety far beyond simply adopting technical standards. For example, every location has different mix of materials that can be used to build infrastructure. Overtime, changes in material science interact with locally available raw materials create new ones.[1]

This becomes a problem as the Constitution of India, which details the distribution of legislative powers between the centre, states and local bodies, allows for devolution of urban and town planning to notified towns known in India's municipalities. As a result, census towns are neither responsible for planning their urbanization, nor do they have to power to do so. Even from the municipalities and above, different levels of governance are responsible for providing specific types of infrastructure as detailed in the Constitution of India. The quality of this infrastructure and the extent to which it adheres to the adopted standards may vary due to the capacity or lack thereof of the governing body involved.

Further, as India's regulatory framework for infrastructure development safety standards is still evolving, there is systematic consideration that, if addressed appropriately, could also reduce risk. For example, while there is merit in moving towards a performance-based standards regime, prescriptive standard are used when there is lacking competence to convert descriptive requirements into quantitative specifications. As a result, an appropriate balance between the two regulatory frameworks should be considered when developing a regulatory framework for standards, one that encourages compliance and allows for its measurement. Similarly, the question of whether to retrofit existing infrastructure (and to what extent and level of safety) is an important one for India. This paper explores these and several other systematic considerations.

Based on this review, this paper identifies areas for concern while moving forward in India's high-placed urbanization context. Rather than focusing deeply on any one standard, this paper analyses the ecosystem for standard setting in India's infrastructure development from a risk perspective. The rest of this paper is structured as follows:

[*] *Student* @ School of Legal Studies, Modi University of Science & Technology; *Email:* sonikannu19@gmail.com; Contact: +91-9417768333

[**] *Student* @ School of Legal Studies, Modi University of Science & Technology; *Email:* meenapriyanka776@gmail.com; Contact: +91-9929648710

[1] Available at: https://www.nipfp.org.in/media/medialibrary/2018/05/WP_230

Section 2 gives an overview of trends in India's infrastructure development and urbanization landscape. Section 3 reviews the legal framework for infrastructure development, as detailed by the Constitution of India. Section 4 explores how infrastructure standards are developed, both internationally and in India. It also details the implementation process for developing infrastructure as per pre-defined standards, and addresses accountability of professionals involved in this process, along with possible incentive mechanism to increase compliance to these standards. Section 5 explores systematic considerations when developing a framework for standards, such as the importance of developing standards for operating and maintaining infrastructure once it's built. Section 6 concludes by highlighting some areas for concern in the current framework.

It is a network of physical facilities and public services and with this social infrastructure is equally important to support it.

- It is an important base for economic development of the country.
- These services include roads, railways, ports, airports, dams, power stations, oil and gas pipelines, telecommunication facilities, the countries educational system including school and colleges, health system including hospitals, sanitary systems, clean drinking water facilities and the monetary system including banks, insurance and other financial institutions.

PRESENT SCENARIO

India at present is at the threshold of becoming a developed country. Its economy has been growing at a high GDP growth of over 8 percent per annum. With the increase in population the demand for goods and services is increasing every year. The number of dwelling units in big and small cities is increasing. There is more demand for power to run home appliances in these as well as existing units. To meet this ever increasing demand we need to build a huge power infrastructure. That is why India has entered into a nuclear deal with America whereby the sole superpower in the world shall provide us with nuclear technology. Many nuclear reactors will be set up in India. The nuclear fuel will be supplied by some of the countries in the Nuclear Suppliers Group (NSG). Nuclear energy will be harnessed to be used for peaceful purposes.

The transportation infrastructure includes roads, vehicles, railways, tracks, trains, ports, airports, ships and vessels. Road transportation is perhaps the most important because the railway tracks cannot be laid everywhere. The roads are the means by which the movement of people and goods from one place to another is ensured. Millions of people move out of their houses every day to reach their places of work, trade or business daily. They not only generate income from working but also fulfill the needs of others. They use roads and vehicles available to them.[2]

The national highways are mainly used to move from one city to another and for supply of essential goods-food grains and other articles of use from one city to another. Thus, roads are

[2] Available at: http://www.shareyouressays.com/-role-of-infrastructure-in-development-in-india/2855

a key to the success of Public Distribution System. If there is no road transportation, the supply of these goods will not be possible to different cities and towns. The whole economy will collapse.

Railways are another important part of transportation infrastructure. India has a huge railway network with a route length of 63,221 km, a fleet of over 7,800 locomotives, 5,340 passenger service vehicles and nearly 5,000 other coaching vehicles. There are 7,031 stations across the length and breadth of the country. The total network is divided into 16 zones. Crores of passengers travel through railways for the job, work and personal needs every day. Thousands of tons of goods are taken from one place to another. The transportation of heavy goods like steel and raw material like coal cannot be transported by any other mode of transport than the railways. Apart from performing these vital functions for the economy and the country, the railways are a huge source of revenue for the government. It has also given employment to lakhs of employees directly or indirectly.

Airports and civil aviation are also part of the transportation network in the country. Air travel is fast and highly comfortable. It caters to the needs of rich sections of people and the high executives and political delegates whose time is highly precious. It is also used for speedy transportation of goods, particularly the perishable goods which, if sent through road or railway transport will rot in the way.

In India the civil aviation has three main functional divisions-regulatory, infrastructure and operational. On the operational side India Airlines, Alliance Air, private scheduled airlines and non-scheduled operators provide domestic air services while Air India provides international air services. Pawan Hans Helicopters Limited provides helicopter services to 11 and Natural Gas Corporation (ONGC) in its offshore operations to inaccessible areas and difficult terrains. Sahara Airlines and Jet Airways have also been permitted to operate on international sector. In order to help the Indian exporters and make their exports more competitive, the government introduced an ‘open sky policy’ for cargo.

Under this policy, foreign airlines or associations of exporters can bring any freighters to the country for the upliftment of cargo. Charter flights for tourists are also allowed to and from India. Thus, air services infrastructure plays a key role in civil aviation, international flights and cargo transportation. It benefits the economy immensely and earns millions of rupees every year for the country.

India has a coastline of over 7500 km which is serviced by 12 major ports and 186 other ports. The major ports are under the purview of the central government while the minor ports come under the jurisdiction of the respective state governments. The major ports are: Mumbai, Nava Sheva, Kandla, Marmugao, Mangalore, Cochin, on the west coast; Kolkata, Haldia, Paradip, Visakhapatnam, Chennai, Ennore, and Tuticorin on the east coast.

These ports have a capacity of over 450 million tones. The number of cargo vessels handled at these ports is about 16,500 per annum. The cargo handled is liquid cargo, dry cargo and container cargo. In order to improve the efficiency, productivity and quality of services and to bring competitiveness in port services, the government has encouraged private participation

in it in the wake of liberalization and globalization of the economy. The Eleventh Plan outlay for port sector is around Rs.6,500 crore.

If one sector has developed more than any other sector during the last one decade or so, it is the communication sector. It encompasses the postal network, mail system, telecommunications, including telephones, mobile phone services, etc. The postal service is catering to the mailing, telegraphic services which have now been supplemented by courier services. India has a huge infrastructure for postal and telecommunication services whereby letters, parcels and messages are sent to various parts of the country and abroad. Mobile phone services are the buzzword of our society now. Several companies like Bharti Airtel, Reliance Communication, Hutch and Vodafone are flourishing apart from the public sector MTNL.

Infrastructure is the base on which all economic activities of the country depend. The government is spending thousands of crores of rupees every year to create this infrastructure where it does not exist or is not fully functional. It has also established adequate systems for their maintenance and upkeep so that it remains efficient and durable.

GOVERNMENT INITIATIVES

The Government of India is not expected to invest highly in the infrastructure sector, mainly highways, renewable energy and urban transport.

The Government of India is taking every possible initiative to boost the infrastructure sector. Some of the steps taken in the recent past are being discussed hereafter.

- Announcements in Union Budget 2018-19:
    - Massive push to the infrastructure sector by allocating Rs5.97 lakhs crore (US$ 92.22 billion) for the sector.
    - Railways received the highest ever budgetary allocation of Rs1.48 trillion (US$ 22.86 billion).
    - Rs16,000 crore (US$2.47 billion) towards Sahaj Bijli Har Ghar Yojana (Saubhagya) scheme. The scheme aims to achieve universal household electrification in the country.
    - Rs4,200 crore (US$ 648.75 billion) to increase capacity of Green Energy Corridor Project along with other wind and solar power projects.
    - Allocation of Rs10,000 crore (US$ 1.55 billion) to boost telecom infrastructure.
- A new committee to lay down standards for metro rail systems was approved in June 2018. As of August 2018, 22 metro rail projects are ongoing or are under construction.

- Rs2.05 lakhs crore (US$ 31.81 billion) will be invested in the smart cities mission. All 100 cities have been selected as of June 2018.
- The Government of India is working to ensure a good living habitat for the poor in the country and has launched new flagship urban mission, the Pradhan Mantri Awas Yojana (Urban). In May 2018, construction of additional 150,000 affordable houses was sanctioned under Pradhan Mantri Awas Yojana (PMAY), Urban.[3]

LEGAL FRAMEWORK

The Constitution of India details the distribution of legislative powers between the center and the states. While the Parliament of India has exclusive power to make laws on some items (such as national highways), the legislature of any state can make laws on others (such as water supply). Further, the legislature of a state has power to constitute municipalities and panchayats and May, by law, endow them with certain powers and authority. This section highlights the distribution of legislative powers for infrastructure related items.[4]

Central Level: Items on which the Parliament of India has exclusive power to make laws include:

1. Railways
2. National highways
3. Major ports
4. Airports
5. Telecommunication

Developing infrastructure under these sectors is the responsibility of the Centre, and is administered through statutory bodies or through ministries. For example, the National Highways Authority of India (NHAI) is the nodal agency responsible for developing, maintaining and managing Indian national highways, and was established through the National Highways Authority of India Act, 1988. Similarly, the Airports Authority of India Act, 1994 established the Airports Authority of India (AAI), which is responsible for "establishing or assisting in the establishment of airports".

Each of these statutory bodies adopts appropriate standards for design and construction of sector-specific infrastructure. These standards are developed by various bodies, some governmental and some private entities. For example, the Indian Road Congress (IRC) is a registered society of highway engineers established for developing and updating standards, codes of practice and guidelines, for the road sector. While this society is not a government entity, NHAI regularly uses IRC standards for construction. In contrast, the Research Design and Standards Organization (RDSO) is a government organization under the Ministry of Railways that develops standards and specifications for materials and products for Indian Railways. The centre may also adopt and apply international standards in some cases (as discussed in section 4).

[3] Available at: https://www.ibef.org/industry/infrastructure-sector-india.aspx
[4] Available at: https://www.nipfp.org.in/media/medialibrary/2018/05/WP_230

State Level: Items on which the legislature of any state has power to make laws include:

1. Roads, bridges, ferries, and other means of transportation not under the Centre's jurisdiction
2. Water supplies, drainage and embankments, water storage and water power
3. Land rights, tenures and revenue

Within a state, every metropolitan area is required to have a committee to prepare a draft development plan for the area as a whole. Also, states are responsible for the constitution of municipal corporations and other local authorities for the purpose of local self-government or village administration.

The Constitution of India defines three types of municipalities:

1. Nagar Panchayats for areas in transition from a rural area to urban area
2. Municipal Councils for smaller urban areas
3. Municipal Corporations for larger urban areas.

Establishment of municipalities is done by public notification by the Governor of the state. States may, by law, endow municipalities with the functions and implementation of certain items within their jurisdiction, including:

1. Urban planning including town planning
2. Regulation of land-use and construction of buildings
3. Roads and bridges
4. Water supply for domestic, industrial and commercial purposes
5. Slum improvement and up gradation

Municipal Level: Municipal develop legal tools in the form of "Building Bye-Laws" for structural design and construction (including that of public infrastructure such as roads), to achieve orderly development of an area. These bye-laws are developed while keeping the local geography in mind, such as seismic zones and flooding risk. They incorporate standards developed by the Bureau of Indian Standards (BIS). This is the national standard setting body in India, established under The Bureau of Indian Standards Act, 1986. Some BIS standards are made mandatory through building bye-laws within the jurisdiction of the municipality, though these bye-laws vary with each municipality.

Panchayats Level: Village panchayats are rural local bodies responsible for some of the governance functions in their locality, as defined by Article 243B of the Constitution of India. The states may (by law) endow panchayats with the functions and implementation of:

1. Roads, culverts, bridges, ferries, waterways and other means of transportation
2. Rural electrification, including distribution of electricity
3. Minor irrigation, water management and watershed development
4. Drinking water

For example, The Maharashtra Village Panchayats Act gives a panchayat established under this act responsibility over the "construction, maintenance and repair of public roads, drains,

bunds and bridges: Provided that, if the roads, drains, bunds and bridges vest in any other public authority such works shall not be undertaken without the consent of that authority.[5]

PROBLEMS IN INFRASTRUCTURE DEVELOPMENT

- Urban Infrastructure Problems in India

Urban Infrastructure Problems in India are an age old problems. The infrastructure problems in India mostly took a back-seat in the economic development policy drafts. The meagre budgetary allocation to arrest infrastructure problems in India has so far proved to be too little to keep pace with other areas of business development in India. Moreover, the tremendous growth of Indian IT, telecommunication, manufacturing, and pharmaceutical industries has consumed the limited world class urban infrastructure available in India. The urban infrastructure problems in India are urban residence, business, urban premises, power urban transport, water, sewerage, airports, Railways, seaports, roads, bridges, Tourism infrastructure, solid waste management, projects in SEZ, health care, entertainment and communication.

- Rural Infrastructure Problems in India

Rural Infrastructure Problems in India have gone from bad to bad worse in recent years. The government of India has taken some important steps to arrest the age old problems of rural India, such as: connecting 66,800 habitations with all-weather roads, construction of 1,46,000 km of new rural roads, upgrading 1,94,000 km of existing rural roads, allocation of investment to tune of 1,74,000 Crore envisaged under Bharat Nirman. Providing a corpus of 8000 Crore for rural infrastructure Development fund (RIDF) with around 600,000 villages and 70% of its population in rural India, the need of the hour for the government is to develop proper rural infrastructure for the masses in India. The immediate focus area should cover but not be confined to the following areas Power, irrigation, drinking water, rural housing, rods, health care, telecommunication, and main problem is education.[6]

SUGGESTIONS

Two important steps are required for the Indian Infrastructure Sector. Firstly, we need to setup an independent regulatory body like SEBI for infrastructure. The primary role of this body would be attract private investments and protect the investor from various risks. Secondly, we need to have an authority which should take care of sovereign obstacles. The basic role of this body will be to remove the obstacles for public projects and monitor the development of the project.

The new PPP (Public Private Partnership) model has a lot of potential to carry out various infrastructure projects and provide better infrastructure for each sector. Success stories of Gujarat Solar Innovation Project, Delhi Metro Rail Project showcase the power of PPP.

[5] Available at: https://www.nipfp.org.in/media/medialibrary/2018/05/WP_230

[6] Available at: https://www.slideshare.net/deepaksdhaka/infrastructure-in-india-4769087

CONCLUSION:

Infrastructure, both economic and social, is essential for the development of a country. As a support system, it directly influences all economic activities by increasing the productivity of the factors of production and improving the quality of life. In the last six decades of independence, India has made considerable progress in building infrastructure; nevertheless, its distribution is uneven. Many parts rural India are yet to get good roads, telecommunication facilities, electricity's, schools and hospitals. As India move towards modernization, the increase in demand for quality infrastructure, keeping in view there environmental impact, will have to be addressed. The reform policies by providing various concessions and incentives, aim at attracting the private sector in general and foreign investors in particular. While assessing the two infrastructure- energy and health it is clear that there is scope for equal access to infrastructure for all.