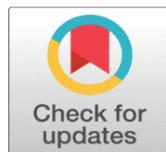


INFRASTRUCTURE DEVELOPMENT IN NORTH EAST INDIA: ISSUES AND CHALLENGES

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DOI

[10.29121/shodhkosh.v4.iMIHCSET.2023.5298](https://doi.org/10.29121/shodhkosh.v4.iMIHCSET.2023.5298)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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ABSTRACT

India's north east despite being rich in biodiversity and natural resources continue to languish at the bottom of the table when it comes to economic development. One of the main reasons for the underdevelopment of the region is the lack of infrastructure both in adequate quantity and quality. The partition of the country in 1947 gave a cruel blow to the connectivity of the region with the rest of the country. The loss of partition has neither been truly appreciated nor compensated till date. The result is the lack of infrastructure especially economic or physical as some of the state capital could not be connected with rail line even after so many decades of independence. However, if given the 'Big Push' in the development of required infrastructure, the region has the potential to development and in the process contributes to the overall growth story of the country. It is rightly said that if India is to be developed, the North East has to be developed first and for that to happen the region has to be provided with infrastructure to catalyst the whole growth process in the region.

Keywords: Development, Economic, Infrastructure, North-east, Social

1. INTRODUCTION

The north eastern region (NER) of India consists of seven sister states i.e., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and their close cousin, Sikkim. The region is socially, culturally, and politically complex in nature and has great diversity in terms of environment and natural resources (Kemper et al. 2007). It is home to more than 160 Scheduled Tribes and 400 other tribal or sub-tribal community groups (NER Vision-2030). Despite her abundant resources in terms of water and forests, the NER continues to be one of the most backward region not only in India but in the whole Indian sub-continent as well (Brunner, 2010). The partition of 1947 took the region into the realm of backwardness by at least a quarter of century and it still continues to hinder the path of her overall development (NER Vision-2030). The partition left the region completely isolated with just 2.0 percent of her geographical connectivity with the rest of the country while the remaining 98.0 percent of her border with the neighbouring countries.

The loss of the partition has neither been adequately appreciated nor compensated. As a result, the region tends to be seen as a distant post, some kind of land's end as the Shukla Committee Report, 1997 had rightly stated. The report identified four deficits that confront the region viz. i) a basic needs deficit, ii) an infrastructural deficit, iii) a resource deficit, and iv) a two way deficit of understanding with the rest of the country. The focus of the present paper is on one of the most pertinent deficit that plagues the north east states i.e. infrastructural deficit.

2. OBJECTIVES AND METHODOLOGY

The main objective of the present paper is to study the development of infrastructure in the NER of India. The paper attempts to analyse the status of both economic and social infrastructure in the NER. In that, the paper tries to identify the particular infrastructure that is found to be deficient in the NER of the country. The paper is based solely on secondary data collected from various central government institutions of the country like the Reserve Bank of India (RBI), Ministry of Transport and Highways, Ministry of Power, Ministry of Communications, etc. The paper is divided into five sections. While the first section gives an introduction to the study, the second section gives a broad overview of the objectives of the paper as well as the methodology employed in the paper. The third section on the other hand is the literature review of the topic. The next is the discussion and result section which discussed the findings of the study. The last or the fifth section gives a conclusion to the entire study.

3. LITERATURE REVIEW

Despite frequently used in common parlance, a clear, consensus and universal definition of the term 'infrastructure' still eludes us. Nonetheless, there is a broad agreement as to what it is and is not. It is also used interchangeably with 'social overhead capital' (SOC), 'public overhead capital' (POC) and 'overhead capital' (OC). Hirschman (1958), one of the most eminent contributors in the field defined SOC as those basic services without which primary, secondary and tertiary productive activities cannot function. In it, he included all public services like law and order, education, public health, transportation, communication, power and water supply along with irrigation and drainage systems. The hard core of the subject according to him include transportation and power. Nurske (1962) in line with Hirschman considered infrastructure as providing services like transport, power, water supply etc. which are considered as basic for any productive activities. Rodan (1970) also defined SOC as all those basic industries like power, transport or communications and they must precede the directly productive activities.

The World Bank (1994) used the definition of infrastructure as an umbrella term referring to all those activities referred to SOC as used by the above mentioned three eminent economists. The India Infrastructure Report (1997) included in infrastructure a wide spectrum of services like transportation, power generation, transmission and distribution (T & D) of power, telecommunications, port handling facilities, water supply and sewage disposal, urban mass transport system, irrigation, medical, educational and other primary services. The Rangarajan Committee (2001) recommended the inclusion of railway system, roads, bridge, runway and other airport facilities, T&D of power, telephone lines, telecommunication networks, pipeline for water, crude oil, port facilities, irrigation, and sanitation in the ambit of infrastructure.

One common thread that binds the diverse definitions of infrastructure is that it has got certain characteristics which distinguish it from other sectors. The presence of external economies or spillovers is one of the most prominent characteristics of infrastructure. The building of infrastructure creates both positive and negative externalities but quite often the social benefits far exceeds its cost of generation and thus arises the problem of pricing its services (Dhingra, 2004). Closely related to the above characteristic of infrastructure is the property of 'non-excludability, of infrastructure. To put simply, if infrastructure service is offered to one, it is automatically available to others as well. Infrastructure also entails huge investment and consequently is lumpy in nature. The provision of infrastructure is generally done by the public agencies and the interest of the private sector in its investment is of recent origin. Further, infrastructure is space specific and hence immobile. It also creates widespread benefits to the overall economy and its provision must precede the directly productive activities in the process of development.

Due to its abstract definition as well as wide scope, there is various classification of infrastructure. However, the most common one is between social and economic infrastructure. Hansen (1965) classified between two kinds of infrastructure in accordance with the demand for the activity. According to him, those infrastructure classified as economic supports the directly productive activities while social infrastructure are less concerned with providing

satisfaction which are 'non-economic' in nature. The World Bank Report of 1994 which focussed on economic infrastructure included in it public utilities like power, telecommunications, piped water supply, sanitation and sewerage, solid waste collection and disposal and piped gas. It also included in public works like roads, major dams and canal works for irrigation and drainage. Finally it included transport sectors like urban railways, urban transport, ports, airports etc. in it.

Social infrastructures on the other hand are institutions and government policies determining the economic environment which individual accumulate skills and firms accumulate capital and produce output (Hall and Charles, 1999). Under its ambit are services such as health, education and recreation impacting directly and indirectly the quality of our lives (UN Habitat, 2011). Social infrastructure unlike economic infrastructure leads to the formation of human capital as opposed to material capital. Another classification could be made between institutional and non-institutional infrastructure. Buhr (2003) categorised institutional infrastructure as those comprising all customary and established rules of a community along with the facilities as well as procedures for guaranteeing and implementing these rules by the state. Thus it includes all those institutions that provide services in order to propagate investment in various productive activities. Non-institutional infrastructure on the other hand includes all those types of infrastructure other than institutional infrastructure (Joshi, 1990). Other less frequently discussed classification of infrastructure are developmental and rehabilitative infrastructure, urban and rural infrastructure and between hard and soft infrastructure.

Infrastructure is often considered as the edifice on which the structure of economic development is built upon. It is widely regarded as the sine-qua-non of any development strategy. It represents the 'wheels' of economic activity if not the 'engine' (World Bank, WDR, 1994). In fact, access to infrastructure strongly shape economic opportunities available to people (World Bank, WDR, 2006). Rodan (1970, 1982), one of the pioneering proponent of investment in infrastructure emphasised an infrastructure led model of development in his 'Theory of Big Push'. Hirschman (1958) argues that the provisions of core infrastructure i.e., power and transportation facilities are basic and essential precondition for economic development anywhere and everywhere. Rostow (1960) also emphasised the role of infrastructure in the process of economic growth. In his seminal work on the 'stages of economic growth' he argues that a build-up of infrastructure especially transport is a pre-condition for take-off in an economy. In fact, infrastructure is often considered as synonymous with development and the lack of it conversely is regarded as a signal of underdevelopment (ADB, 2012). The India Infrastructure Report (1997) also duly stressed the impact of infrastructure in growth and development especially in India. The report highlighted the necessity of providing adequate infrastructural facilities for the overall development of a country and its availability often determines a country's success in diversifying production, expanding trade, coping with population growth, reducing poverty and even improving environmental conditions.

4. RESULTS AND DISCUSSION

As discussed above, the lack of infrastructure development in one of the most important factors that hinders the overall economic development of NER. Apart from the disruptive effects of partition, the difficult terrain, political instability, governance issues etc., are some of the factors which effectively prevent infrastructural development in the region. However, with the support of the central government and the respective state governments of the region, infrastructure has been at the pivot of the whole development agenda in the region. Table 1 shows the development of infrastructure development both economic and social in the states of the region for the year 2011. Tripura, Assam and Nagaland score well in terms of road per 100 sq. km. area while the rest of the states especially Arunachal Pradesh fares poorly. However, in terms of power consumption which is an important indicator of the level of economic activities, all the states in the NER use less power compared to the rest of the country. The per capita consumption of power is extremely poor for the states of Manipur, Assam, Tripura and Nagaland. Regarding the percentage of village electrified, Sikkim, Mizoram and Assam does well while Nagaland, Tripura, Arunachal Pradesh and Meghalaya have a lot to do more in this parameter.

Table1 Infrastructure development in North Eastern States of India, 2011

States	Road per 100 sq. km.	Per capita consumption of power (kwh)	Percentage of village electrified	Per capita bank deposit	Hospital bed per lakh pop.	Percentage of household with mobile
Arunachal Pradesh	25.74	683	75.5	60	160.26	39.9
Assam	308.25	250	96.1	718	24.42	43.5
Manipur	85.69	236	86.3	42	48.49	52.3
Meghalaya	53.43	658	76.5	119	95.62	39.1
Mizoram	46.53	507	92.9	43	130.36	63.9
Nagaland	205.96	257	70.1	58	108.64	48.6
Sikkim	65.25	886	100	40	255.32	67.7
Tripura	322.07	254	71.2	132	82.53	42.7

Sources GOI, Various Ministries.

As seen from the above table, the NE states also score extremely poor when it comes to banking infrastructure. The per capita deposits are the lowest in the region compared to the rest of the country. Except Assam, the other states need to ramp up the coverage of banking infrastructure in the region and efforts towards financial inclusion need to be pursued in the region in utmost seriousness. When it comes to hospital beds per population, the state of Assam fared very poorly while Sikkim scores the highest in the region. In terms of percentage of households having mobile phones, except Arunachal Pradesh and Meghalaya the other states scores well. Overall, the NER have to develop infrastructure both in adequate quality and quantity if it is to grow and contribute in the overall growth story of the nation. The region needs to focus more on the development of critical economic infrastructure like power supply, railways, road facilities etc.

5. CONCLUSION

Infrastructural deficit is one of the most important factors hindering the growth and development of the NER of India. It was the partition of 1947 which completely disrupted the existed infrastructural networks of the region. The region has come a long way in terms of development of various infrastructures since independence with the central government focussing on the overall development of the region. However, the region has a long way to go as compared to the rest of the country when it comes to the development of these critical facilities. The need of the hour is to develop quality infrastructure specially roads, railways, irrigation, etc. which the region needs. The NER is rich in biodiversity and natural resources like hydro power and those resources could only be extracted and reaped benefits only when adequate infrastructures are put into place. A 'Big Push' as Rodan as propagated in terms of development of infrastructure especially economic infrastructure would change the landscape of development of the region. It needs to be remembered that if India is to be a developed country in the future, a developed NER has a huge role to play and for that to happen infrastructure might be the panacea that the region needs.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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