

## AN OUTLOOK ON INFRASTRUCTURAL SECTORS IN NAGALAND (POWER, ROAD, TRANSPORT AND COMMUNICATION)

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### Abstract

*Infrastructure development builds the road map for economic growth and social upliftment of a county. Econometric studies indicate a direct relationship between development of physical infrastructure and economic growth. The importance of infrastructure development for sustained economic development is well recognized throughout the world. Inadequate and inefficient infrastructure can prevent the economy from realizing its full growth potential regardless of the progress on other fronts. In this paper, the overall growth and performance of infrastructure services has been examined partially on the basis of the different parameters such as trends in growth of physical output in infrastructure sectors so as to examine whether there is a negative or positive association between infrastructure development and Nagaland's economic growth. The study which is based on secondary data collected from various sources, shows that while, there has been a general improvement in the provision of economic infrastructure facilities in the region, the achievements made so far is well below the national average. The paper shows that the government has proposed policies for development of the state but various factors such as insurgency, geographical factors and infrastructural constraints have hindered the expected outcome of the policies. After analyzing these reasons we conclude our paper by suggesting various measures that can be adopted to overcome these problems and accelerate the development process.*

**Keywords:** Economic Development, Government, Infrastructure

### Introduction

Infrastructure is itself a component of the capital stock of a country. Infrastructure is a defined as capital of a society or social capital that is embodied in such forms as it helps in direct productive activities. Infrastructure development builds the road map for economic growth and social upliftment of a county. Econometric studies indicate a direct relationship between development of physical infrastructure and economic growth. The importance of infrastructure development for sustained economic development is well recognized throughout the world. Inadequate and inefficient infrastructure can prevent the economy from realizing its full growth potential regardless of the progress on other fronts. One of the major issues in the NER in general and Nagaland in particular, the need for infrastructure is vital due to hilly and mountainous areas on the one hand and sparsely populated areas on the other. Speedy provision of infrastructure and connectivity becomes critical for the economic development of the State.

### Methodology

The relevant secondary data is collected through various sources such as websites, government data, books and journals.

**Objectives: The study was planned with the following objectives:**

- To study the extent of infrastructural facilities available in Nagaland..
- To examine the nature of problems faced by the people in developing infrastructural facilities.
- To study government initiatives to promote infrastructure in the state.

**Power**

Power or Electricity being the most convenient and versatile form of energy plays a key role for accelerated economic development. It is also the most crucial source for domestic energy requirements. Power sector makes a direct and significant contribution to the economy in terms of revenue generation, employment opportunities and enhancing the quality of life. The State is fully dependent on its share of power allocation from the Central Public Sector Undertaking such as NEEPCO, NHPC and NTPC. The peak power demand at present stands at 156MW out of which only 142.67 MW is available from State's own generation and Central Sector allocation. The State owned power generation are from hydro owned sectors Likimro (24MW), Lang(1MW), Duilomroi-I (0.54 MW) and Duilomroi II(0.20 MW).So far, a total of 26.74MW stand harnessed under various sectors. The status of electrification in Nagaland shows that out of 436217 households, 141049 are yet to be electrified out of which 24566 is in urban and 116483 are in rural. Department of Power caters to approximately 2.43 lakh consumers of which domestic consumers constitute almost 80 per cent. Agriculture and irrigation consumption is categorised as lowest with consumption of only 1 per cent. In 2015-16 the revenue collection from power increased to Rs 112.73 crore from Rs 99.35 crore indicating an increase of Rs 13.47 crore over the previous year. Nagaland has a potential for 1,574 MW of hydropower generation, while the installed hydropower generation capacity in the state, as of June 2016, was 53.32 MW.

**Table1 Installed Capacity and Generation of Electricity, 2010-11 to 2014-15:**

Year	Installed Capacity (KW)	Generation (MKWH)
2010-2011	27.85	517.97
2011-2012	27.85	525.19
2012-2013	25.84	553.98
2013-2014	26.84	605.5
2014-2015	26.84	705.83

**Source:** Statistical Handbook of Nagaland 2010, 2011, 2013, 2014 and 2015. Road, Transport and Communication

Transportation network system is a key element of economic infrastructure. Development of agriculture, industry and trade, is crucially dependent on the growth

and efficiency of the transport system. Nagaland transport comprises of road transport, air and railway. Road transport assumes paramount importance in the State. Transport service is provided through Nagaland State Transport with a fleet strength of 214 buses covering all the 11 districts which have road accessibility. NST is plying bus services on 118 route. The total road length of the State during 2016-17 excluding the National Highways is 12079.8 km. The total length of National Highway within the State of Nagaland is 1546.70 km, out of which 1123.68 km is under Nagaland PWD and 424.3 km under BRO.

**Table 2 Routes of National Highways in Nagaland**

National Highways	Routes
NH-02	Starting from Dibrugarh-Sibsagar and Amguri-Mokpkchung-Wokha-Kohima-Imphal-Churanchandpur-Seiling-Serchip-Lawngtala-Tuipang
NH-202	Starting from Mokokchung-Tuensang-Shamator-Kiphire-Meluri-Jesami-Ukhrul-Imphal(in Manipur)
NH-29	Starting from Daboka(Assam)-Dimapur-Kohima-Pfutsiro-Jesami(in Manipur)
NH-129	Starting from Dimapur(Nagaland)-Bokajan-Golaghat-Numaligarh(in Assam)
NH-129(A)	Starting from Manipur-Peren-Jalukie-Pimla Junction-Razaphe Junction
NH-702	Starting from Changtongya-Longleng-Longching-Mon-Tizit-Namtola
NH-702(A)	Starting from Mokokchung-Zunheboto-Dzalami-Chozuba-Phek-Kotisu-Tezatse-Meluri
NH-702(B)	Starting from Tuensang-Longleng
NH-702(D)	Starting from Mokokchung-Tzurang
NH-329(A)	Starting from Diphu-Pimla Junction
NH-229	Starting from Jail Junction –Thaheku-Chumukedima

**Source:** Chief Engineer, PWD(R &B), Nagaland: Kohima

**Table 3 Newly declared National Highways in Nagaland**

Description/Details of Road Stretch	Approx Length in km
NH29	270.00
Showuba-Guzonyu-Pughoboto-Zunheboto-Aghunato-Shamator-Noklak-Pangsha	200.00
Trans Eastern Highway from Mon-Longwa-Pangsha-Kiphire-Avangkhu	280.00
Gandhi Ashram Chuchuyimlang NH-2 to Pangsha(International Trade Centre)	167.00

Maibung in Tenang in Nagaland to Tamenglong via Tamai in Manipur	75.00
Raman Ali Singulari-Bihubar in Assam to Mon in the State Nagaland	71.00
<b>Total</b>	<b>795.7</b>

**Source:** Chief Engineer, PWD(R&B), Nagaland, Kohima.

### Civil Aviation and Operation of State Helicopter Service

The Nagaland State Transport department liaises and coordinates with Civil Aviation Ministry on matters of air transport. Construction of airstrips for landing of small aircraft and establishment of international standard airport in the state proposal are being pursued. Besides, State Helicopter Service is operated on weekly basis connecting all the major district headquarters. Chartered sorties are also undertaken for lifting VVIP/VIP and patients from remote and rural areas falling under identified/permissible coordinates.

**Table 4 Flight Information**

Airlines	Flight No	Duration (In Min)	From	Via	To
Indian Airlines	LLR 215	120	Calcutta	Tezpur	Dimapur
Indian Airlines	LLR 215	60	Dimapur	Direct	Calcutta
Indian Airlines	LLR 257	120	Calcutta	Jorhat	Dimapur
Indian Airlines	LLR 257	60	Dimapur	Direct	Calcutta

**Data Source:** Aerodrome Officer of the respective Airport

### Railways

The foundation stone for construction of the Dimapur-Zubza railway line was laid by the union minister of Railway in August 2016. Although declared a national project in 2010 work could not start as stipulated due to land issues. A committee has now been constituted to oversee the construction of Dimapur-Zubza connecting Kohima, the State capital (90.54 km). Survey for rail link in the foothills of the State from Dimapur-Tizit (246.25 km) has been completed. Construction of the railway up to Kohima will not only ease transportation of goods and passengers but will also boost tourism and other facilities.

**Table 5 Route of Nagaland (In Kilometres)**

B.G	M.G	Total (Kms)
7.63	5.22	12.85

**Data Source:** N. F. Railway, CME Office, Guwahati-781011

### Inland Waterways Transport

An Inland Waterway Transport Wing in the Transport Department has been set up to liaise and coordinate on matters pertaining to inland waterways and to identify potential inland waterways and to undertake feasibility studies. The Ministry of Shipping through M/s Rites Ltd. Has identified three water ways in Nagaland, Viz.Tizu River with 42 km and Dikhu River with 52 km for interstate transport with Assam.

### Communication Network

The postal and communication facilities in the State have been growing steadily in recent years. During 2014-15 there were 328 number of post-offices operating in the State with its Head office at Kohima. Dimapur district with 55 Post Offices has the highest number, followed by Mokokchung district with 52 and Kohima district with 49. Longleng district recorded the lowest number of Post Office with only 7.

**Table 6 Number of Post Office in Nagaland Categorized (2014-15)**

District	Head Post Office	Sub-Post Office	Gramin Dak Sewak/Branch Post Office	Total
Kohima	1	8	40	49
Dimapur	-	8	47	55
Peren	-	2	13	15
Phek	-	4	32	36
Mokokchung	-	7	45	52
Wokha	-	2	22	24
Zunheboto	-	2	17	19
Tuensang	-	2	25	27
Kiphire	-	1	13	14
Longleng	-	1	6	7
Mon	-	4	26	30
<b>Total</b>	<b>1</b>	<b>41</b>	<b>286</b>	<b>328</b>

**Source:** Statistical Handbook of Nagaland 2015

### Information Technology

In the digital era, internet connectivity is crucial for communication especially in hilly areas where travel is difficult and expensive. Besides assessing real time information on markets and prices, the NER in general and Nagaland in particular are climatically well suited to plug into India's growing IT commerce. The status of digital /IT connectivity in the State is through Optical Fibre Cable and mobile technology and current status of connectivity indicates a tele-density of 69 percent. . It needs to be raised to 100 percent by 2020 with at least 4G connectivity.

### Media

The media of Nagaland is an important component of the State. Media of Nagaland includes Television, Radio and Newspapers. The most popular newspapers in Nagaland include Nagaland Post, The Eastern Mirror, Nagaland Page, The Morung Express, The North East Herald. Radio broadcasting is both from Government and private agencies like AIR and private FM stations . Presence of dish TV operators from various private firms along with Prasar Bharati (Doordarshan) entertains and educates the people of the State.

**Table 7 News Papers in Nagaland**

Description	2013	2014	2015
<b>Newspaper Daily's</b>			
• English	4	4	4
• Local Dialects/ Vernaculars	3	3	3
• Others (Nagamese)	0	0	1

**Source:** Statistical Handbook of Nagaland 2013, 2014 and 2015

### **Government Initiatives**

- The 'Nagaland Vision 2030' document was unveiled in December 2016 outlines the broad contours of development which the State envisioned to undertake over the next decades or so.
- Nagaland Science & Technology Council (NASTEC) undertakes scientific programs either independently or in collaboration with premier research institutions in the country.
- Nagaland's IT policy aims to increase the use of IT in the industrial and government sectors.
- Under the capacity building various trainings are conducted to create more knowledge on basic computer skill.
- Common Service Centre was officially launched on 21 September 2013 for setting up in 220 locations for proposed varied services like application form of scholarships, certificate, mobile recharge, train ticket and flight ticket.
- The State has entered into PPP mode of development of Dikhu-186 MW. The Government is also encouraging private developers to invest and develop the identified State hydro potentials.
- In order to meet the deficient power supply, initiatives undertaken through State Plan and the World Bank Funded NERPSIP Scheme.
- To improve efficiency in the collection of revenues and to facilitate consumers in payment of their electricity bills online payments facility were introduced in the towns of Dimapur, Kohima and Chumukedima during 2016-17 under the Restructured Accelerated Power Department & Reforms Program (RAP-DRP).
- The programme of "24x7 Power for All" programme will be implemented by Government of Nagaland (GoN) with the objective to connect the unconnected in

phased manner by FY 2018-19 to ensure supply of quality, reliable and affordable power to all category of consumers on 24x7x365 basis.

- To provide a major boost to air connectivity in the Northeast, 92 new routes will be opened in the NER in the second round of the government's 'Udaan' scheme, according to Union Minister of State for Civil Aviation Jayant Sinha .
- The Dimapur-Kohima four lane highway (NH 39) will be built as a three part project by the National Highways & Infrastructure Development Corporation Limited (NHIDCL) under the Special Accelerated Road Development Programme for North East (SARDP-NE) scheme.
- The Nagaland Foothill Road Coordination Committee has been formed to review work progress of a 300 km road from eastern Nagaland's Mokochung town to Dimapur, its commercial hub.
- NH-39 Kohima – Imphal road covering a distance of 126km at the cost of Rs. 1250 crore; Peren – Dimapur road for a distance of 63 km at the cost of Rs. 364 crore and Kohima Dimapur by-pass road covering distance of 61km at a cost of Rs. 550 crore.
- The Central government announced new rail projects worth US\$ 4.27 billion for the North East region, including Nagaland. The rail projects will connect the capitals of all Northeastern states.

### Problems

- Trade and commerce, education, healthcare and agriculture, all have suffered badly due to poor road communications.
- Unfortunately, Nagaland being a land-locked State, communication by air, railway is limited and thus the only proper mode of transportation is road communication system.
- Infrastructure is still in its initial stage of development due to lack of investment especially from the private sectors.
- Dimapur railway station despite of being the second highest revenue generating station in northeast after Guwahati railway stations lacks good infrastructure facilities.
- Presence Inland waterway transport system is more or less insignificant as few people used this medium for transportation or trade purpose.
- The lack of technical manpower is the single most important reason for the IT sector struggling in the State.
- Physical infrastructure such as electricity, communication, transportation are very sporadic and unevenly distributed among urban and rural areas.
- The consequent lack of capital inflow means that the states remain dependent on central government funding for pushing their development or infrastructure related projects/initiatives

### Findings

- Different Government Departments and Officials entrusted with the development work should work with dedication. There should be direct helping hand from the side of these officials to take the people on the path of development through the schemes available for them.
- Planning without participation of the people and their active involvement cannot expect to be realistic. The people of the rural areas should become an active participant in the government programmes intended for their development.
- Leakages of allocated resources are the prime constraints infrastructure development. Constant monitoring and evaluation of the ongoing programmes are the essential panaceas to plug these leakages.
- Lack of connectivity virtually isolated the State not only from the rest of the country and the world, but also within itself.
- The Government of Nagaland has recognised that adequate and sound infrastructural services are necessary for integrating the State with the rest of the nation and improving the quality of life of the people. Accordingly, it has undertaken several infrastructural projects in the State to attract investors the world over.

### **Suggestions**

- Since infrastructure development is inextricably related to economic progress, much needs to be done in terms of provision of economic infrastructure in the State so that it comes at least at par with the all India position.
- Private investment can play a critical role in fuelling economic growth and is essential to generate productive employment, raise productivity and improve technology and the work culture in area of infrastructure.
- Road infrastructure should be the top priority as when road connectivity is good the much talk about development would come smoothly.
- Indigenously developed programs like NEPED (Nagaland Empowerment of People through Economic Development), which was implemented in two phases beginning from February 1995 (until March 2002 and then from April 2001) until today, need the constant support of State Government.
- Internet / Intranet connectivity to all Government institutions including educational institutions. All Government to Citizen (G2C) services should be electronically / IT enabled. Promote knowledge economy through the use of Information Communication Technologies.

### **Conclusion**

In recent years, the Government has been trying to put in place policies regarding the infrastructure development. However, we can conclude that there have been various social, economic, political and geographical problems which have hindered



development of the State. The need for stepping up of investment in the infrastructure sector has been felt very strongly given the fact that the State has been historically capital-starved. National programmes and schemes needs to support the infrastructural requirement of the State. Incentives can also be given for attracting foreign investment in the State. This can however be done once the basic infrastructure facilities are put in place. These policies to encourage employment would reduce discontentment among the youth of the state thereby curbing the spread of insurgency and other problems hindering economic development. The Government has put into place policies for development and integration of the State but in the end it is up to the local people to work hand in hand with the Central and State Governments to ensure prosperity in the state.

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