



# A COMPARATIVE ANALYSIS OF RURAL INFRASTRUCTURE AMONG THE DISTRICTS OF NAGALAND

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## -----ABSTRACT-----

*Infrastructures are the capital stocks that enhance production activities and quality of life of the people. It is the base in which all the economic progress and development rely on. Thus, a study was made on the availability of infrastructure in rural areas among different districts of Nagaland state. The findings revealed that the coverage of infrastructures, such as, Electricity, Road, Phones, Educational Institution, Angawadi, Water supply and Self Help Group in the rural areas of each districts were high. It shows equitable distribution of these infrastructure in the rural areas among the districts of the state. The unequal distributions and lower coverage of infrastructures among different districts of the state are found in the case of post offices, library, veterinary, marketing shed, Banks and ATM. The article concludes with suggestive measures which can be useful for the policy makers.*

**KEY WORDS:** *Infrastructures, Physical and Social.*-----

## INTRODUCTION

Infrastructure is the capital stock that provides public goods and services. It produces various effects, including those on production activities and quality of life for the households, which thus permeate the entire society (Yoshino and Nakahigashi, 2000). The relationship between the economy and infrastructure is evidently critical to promoting inclusive growth and sustainable development. In fact, high cost of transport, energy and internet access is a major economic growth deflator and is partly associated with the global economic marginalization. This linkage between the economy and infrastructure is multi-dimensional in the sense that, economic growth provides both the need for, and the resources to fund, various types of infrastructure (AU and NEPAD 2011). Thus, the development of Infrastructure both physical as well as social infrastructure is the basic need for any countries economic progress and development. Physical infrastructures are long-term physical assets that facilitates development of agriculture, industry, trade, etc.. such as power, transport, telecommunication, etc, while social Infrastructure are an asset that enhance human welfare, freedom from ignorance, diseases and fear, such as, education, health care, water and sanitation services.

Nagaland, the 16<sup>th</sup> state of Indian Union, was inaugurated on 1<sup>st</sup> of December 1963. The state is bounded by Assam in the North and West, by Myanmar and Arunachal Pradesh in the East and Manipur in the South and runs more or less parallel to the left bank of Brahmaputra. It has a population of 1,980,602 (census 2011), out of which rural population comprises of 1,406,861 (71.03%). The state has 1,428 recognized villages as on 2011. Thus, the development of Nagaland and its economy leans on the progress of these villages. Even though the state is endowed with rich natural resources, these resources could not be fully tapped due to lack of capital, human-capital, and many other factors. Thus, the economy of the state becomes dependent on agriculture. Therefore, it is important to assess the existing infrastructure in the rural area of the state as it would highlight the state economic progress and development. Thus, this paper attempts to examine the availability of infrastructure in rural areas of the state and compare among different districts of the state and suggest corrective measures which will be helpful for the state planning and development.

## RESULTS AND DISCUSSION

The infrastructures are broadly divided into Physical and Social infrastructure, the former deals with long term physical assets and the later deals with an asset that enhances human capability. The detail analysis of these infrastructures are given in table No. 1.



**1) Physical Infrastructure of the State**

- a) Road and communication:** Better road infrastructure is a vital feature for any economic development because transport and communication in the society depends on this infrastructure. In a land-locked hilly state like Nagaland better road transport system is needed for generating economic activities of the people because it is the only infrastructure connecting the whole state (Ezung, 2012). The findings revealed that the villages in Nagaland are all connected by roads (either kutcha or pucca). In the area of communication, as shown in table no. 1, it can be seen that 100% of the villages in the state have phones connection (especially Mobile). However, the coverage by post office in the rural areas is only 41%. Among the districts, Mokokchung (64%), Longleng (63%), Kohima (52%), Mon (42%), Peren (42%) and Phek (57%) as shown in table no. 1 have post offices in the rural areas above Nagaland average percentage. The remaining districts, viz, Wokha, Zunheboto, Tuensang, Kiphire and Dimapur have lower percentage of post office lower than Nagaland Average.
- b) Electricity:** Effective power infrastructure development is a prerequisite for economic growth, improved competition, industrialization and earned recognition and induction into the world economy ( Ntebo, Mathe and Ayorinde 2019). There is a direct correlation between the degree of economic growth and the size of per capita energy consumption. From the analysis it was found that 99% of the villages in Nagaland are electrified. Among the districts, Dimapur, Kohima, Longleng, Mokokchung, Phek and Zunheboto have 100% electrification. Whereas, the remaining districts, Kiphire (99%), Mon (97%), Peren (99%), Tuensang (97%) and Wokha (99%) are not fully electrified. However, it can be seen that they are very much closer to 100%.
- c) Marketing Shed:** Another important infrastructure in rural areas which can enhance people income through markets is the availability of Marketing shed. From the analysis it was seen that 31% of the villages in Nagaland has Marketing shed (see table no. 1). Among the districts, Mokokchung (51%), Longleng (38%), Zunheboto (38%), Wokha (33%), Tuensang and Peren with 32% each and Kohima and Phek with 31% are having this infrastructures above the state average. The rest of the villages in the district of Dimapur, Kiphire and Mon have lower percentage of Marketing shed.
- d) Banking:** Banks plays an important role in stimulating economic growth by strengthening agricultural, industrial and other self-employment activities. From the analysis, it can be seen that only 2% of the villages in Nagaland has Banks and Automated Yeller Machines (ATM). With regard to banks and ATM, it is seen that only villages in Dimapur district enjoys this facility (Table no. 1).

**2) Social Infrastructure of the State**

- a) Education:** The role of education and education in a civilized society is very important. First, because education contributes to the formation and development of the individual personality. At the same time the economic development of a country depends on the level of education of citizens, so we need a clear conception of the role of education in society (Biriescu and Babaitaa 2014). Thus, education has a great impact in developing the socio-economic status of the people. There were all together 1924 schools (from primary to higher secondary schools), 1020 primary school, 582 middle school, 261 high school, 41 higher secondary school and 20 colleges, in the rural areas of the state as on 2020. However, since not all the villages have middle school or high school and above, availability of only primary schools in the villages were taken for the analysis. From the analysis it is found that 82% of the villages in the state has schools. Among the districts, Mon (99%), Phek (98%), Peren (91%), Kohima (90%), Tuensang (89%) and Wokha (82%) have higher educational institute higher than the state average. The rest of the districts have this infrastructure lower than the state average.
- b) Library:** The availability of library plays an important role in education, It complements the education system of any society. Though education institute covers more than 82% of the rural areas in the state, it is found that only 17% of the villages in the state has library facility. Among the districts, Mokokchung with 62% its villages having library has the highest percentage followed by Longleng (45%), Tuensang (24%), Zunheboto (22%) and Mon (20%). The rest of the districts have library facilities in the villages lower than the state average. The lowest was found in Dimapur (2%) and Wokha (3%).
- c) Health:** One way of understanding the quality of life is the availability of hospitals, dispensaries, primary health centres, subsidiaries health centres and sub-centres. From the analysis it was found that only 52% of the villages are covered by medical infrastructure in the state. Among the districts, Phek has the highest percentage of villages having this infrastructures with 75% followed by Mokokchung (71%), Mon (70%) and Tuensang with 66%. The rest of the districts have these facilities but lower than the state average. From table no 1 it can be seen than the distribution of this infrastructure is skewed.
- d) Water supply:** Availability of safe drinking water and proper sanitation forms an important component of health. Thus, the supply of portable drinking water was identified as one of the thrust areas of development in the state since such amenity contributes significantly in the maintenance of health care. The accelerated rural water supply programme is sponsored by the Ministry of Rural Development, Government of India with 100% assistance and is being implemented by Public Health Engineering Department. This programme was



implemented in all the districts of the state. The findings revealed that 96% of the villages in Nagaland are covered by drinking water supply as on 2020. Among the districts Phek has 100% coverage while only four districts Longleng (88%), Wokha (91%), Dimapur (94%) and Kiphire (95%) has lower coverage lower than the state average. The results shows a higher coverage in all the districts.

- e) **Angawadi:** Availability of Angawadi centre is important as its main purpose is to reach out to the people and provide the social scheme of the centre, mainly of, child and mother. The availability of this facility among the villages of the state is quite satisfactory with 96% coverage. Among the districts Zunheboto has 100% coverage while only two districts Wokha (89%) and Kiphire (85%) has lower coverage lower than the state average.
- f) **SHG:** Another factor affecting the economic as well as the social of life of the people is existence of Self Help Group (SGH). SHG is a holistic programme of micro-enterprises covering all aspects of self-employment, organization of the rural poor into self help groups and their capacity building, planning of activity clusters, infrastructure build up, technology, credit and marketing (Mishra, 2023). On an average 95% of the villages in the state have SGH. The district wise data shows that in Zunheboto all villages have SHG (100%). It was found that except for Dimapur (85%) and Kohima (91%), all district have higher average of SGH higher than the State average.
- g) **Veterinary:** Veterinarians are important members of rural communities and provide valuable services to both community members and the food production systems in these areas (Elmore and White. 2010). From the analysis, it is found that only 7% of the rural area in the state have veterinary facility. The highest is found in Kohima (20%) and Phek (21%) districts of the state.

## CONCLUSION

From the analysis it can be seen that the coverage of physical and social infrastructure; especially electricity, road, phones, education institutes, Angawadi, water supply and SGH in rural areas are almost evenly distributed among the districts of the state.

However, in other infrastructure there are less coverage and, in some cases, not evenly distributed. In Postal infrastructure the average coverage in rural area was just 41%. However, the distribution of this infrastructure ranges from 31% to 64% depicting high inequality in the coverage are among different districts. For veterinary infrastructure, the total coverage area was just 7%. The existence of this infrastructure among different districts ranges from 2% to 21%. In the case of library, it was 17% of the rural area and it ranges from 2% to 62% among the different district of the state. The availability of medical infrastructure ranges from 35% to 75% among the districts. The coverage of marketing shed in the rural areas of different district ranges from 22% to 51%. For banking infrastructure the coverage is low around 2%. Thus, it is suggested that the government take necessary steps to provide basic infrastructures to all the rural areas of the districts.

## NOTES AND REFERENCES

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**Table No. 1: Availability of physical and social infrastructure in the rural areas of the state.**

Districts	No of villages	1. Electricity	2. Road	3. Phone	4. Education Institution	5. Angawadi	6. Water supply	7. SHG	8. Postal	9. Library	10. Medical	11. Veterinary	12. Marketing Shed	13. Banks	14. ATM	Average of SI No. 8 to Sl. No. 14
Dimapur	212	100%	100%	100%	75%	98%	94%	85%	33%	2%	44%	2%	22%	3%	6%	16%
Kiphire	93	99%	100%	100%	60%	85%	95%	98%	28%	11%	37%	2%	26%	0%	0%	15%
Kohima	94	100%	100%	100%	90%	98%	98%	91%	52%	16%	59%	20%	31%	4%	3%	26%
Longleng	40	100%	100%	100%	73%	93%	88%	95%	63%	45%	48%	5%	38%	0%	0%	28%
Mokokchung	85	100%	100%	100%	81%	99%	96%	98%	64%	62%	71%	5%	51%	6%	2%	37%
Mon	114	97%	100%	100%	99%	96%	97%	98%	42%	20%	70%	3%	24%	0%	0%	23%
Peren	85	99%	100%	100%	91%	96%	99%	96%	42%	5%	45%	7%	32%	1%	0%	19%
Phek	95	100%	100%	100%	98%	99%	100%	98%	57%	11%	75%	21%	31%	2%	2%	28%
Tuensang	117	97%	100%	100%	89%	99%	96%	97%	40%	24%	66%	6%	32%	0%	0%	24%
Wokha	133	99%	99%	100%	83%	89%	91%	95%	31%	3%	35%	5%	33%	1%	1%	16%
Zunheboto	169	100%	100%	100%	66%	100%	96%	100%	32%	22%	40%	8%	37%	1%	1%	20%
Nagaland	1237	99%	100%	100%	82%	96%	96%	95%	41%	17%	52%	7%	31%	2%	2%	22%

Sources: Village Level Development Indicators 2020