

Level of Transport and Communication Development in Mizoram

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Abstract: *Transport and communication is the lifelines of the nation and its economic development. An effective system of these two aspects is the fundamental component to facilitating sustainable social and economic development. Unequal distribution of transport and communication facilities adversely affects disproportion of development between and among the society, region and even the state. The present study attempt to find out the level of transport and communication development using selected variable indicators in the eight districts of Mizoram. Available data collected from secondary sources of Statistical Abstract of Mizoram, 2017 and analyzed with the help of Standardized techniques from Statistical Package for Social Sciences (SPSS). The development of transport and communication can be categorized into five levels such as very high, high, medium, low and very low. There is a high degree of disparity in terms of transport and communication development. The final outcome shows that Aizawl district score a value of 41.52 with highest rank amongst the districts which falls under very high level of development. Two districts of Lunglei (2.13) and Champhai (0.25) categorize under high level of development. Kolasib (-5.18) and Mamit (-6.42) districts falls in medium level of development and followed by Serchhip district with a score value of -8.87. Lawngtlai and Saiha districts score a low value of -10.70 and -12.72. It reveals that the locational advantages and administrative functioning in the core or central part score the high value whereas the periphery and marginal areas scores the low value. Therefore, initiative measures should be taken in remote, rural and marginal areas of the state to reduce inequalities in respect of transportation and communication development.*

Keywords: Development, Inequality, Transport and Communication

1. Introduction

Transport and communication is a way to overcome the physical barrier which provide an effective link to associate people that separates them. It generally involves the movement of people or goods from one place to another and passing of information or data from one source to another. It is related with improving the welfare of society through appropriate certain conditions. Any developing countries must intensely focus on this aspect to make an engine of sustainable development. The remote, hilly and harsh topography requires more efficient system of it.

Transportation has become very significant in each stage of human civilization which contributed the development of economic, social, political and cultural fields which serve as the lifeline of the state's economy. It is an important element of both direct and indirect intervention for socio-economic and regional development (Kumar and Sen, 2014). A good road network constitutes the basic infrastructure that propels the development process through connectivity, and, opening up trade and investment to backward regions. Better transport facilities in a region, higher in the standard of living. Deficiencies of transport facilities are invariably accompanied by poverty and under development (Kumar and Sen, 2014). Rodrigue and Notteboom (2017) strongly believe that because of the intensive use of infrastructure, the transport sector is an important component of economy and a common tool used for development. High density networks and infrastructure are commonly linked with high level of development. Therefore, an effective transport system is a fundamental element in enabling sustainable socio-economic development.

Communication is used for more than just passing on information from one person to another. It is often used as a tool to facilitate the participation of people in developmental activities which plays an imperative role in communication development through transmission of knowledge, providing forum for discussion of issues, teach ideas, skills for a better life and create a base of consensus for stability of the state (Choudhury, 2011). It also plays a notable role in economic, political and social development of a country. The power of the press arises from its ability of appearing to the minds of the people and being capable of moving their hearts (Sharma and Deepak, 2016). Communication plays a central role in existence, development and maintenance of society (Sannoh, 2003). Modern society has become far more complex to function only through interpersonal or group communication. There are many important messages of common concern which have to reach effectively to masses at a time. Thus, media attract and direct attention encourages in matter of opinion and belief influences behavior confers status, status legitimacy and structures perception of reality. Both, electronic as well as printed media are direct or indirectly influence government or business houses for shaping the country's development with top-down structures which could reflect the socio-economic development of a society.

2. Data Base and Methodology

Development level of transport and communication cannot be measure in a single variable indicator. To study the district-wise development, secondary information were collected from Statistical Abstract of Mizoram: 2017 for eight districts and analyze with the help of Z-score or Standardized score techniques from Statistical Package for

Social Sciences (SPSS). In the Z-Score techniques, the following method is used to find out the composite index for level of development which may be explained as:-

- 1) Data obtained from primary sources for inter and intra-block analyses were transformed into variables used as indicators.
- 2) To transform data matrix into scale free matrix, indicators were standardized by subtracting the mean from each individual variables and divided by their standard deviation as the following formula:-

$$Z_i = (X_{ij} - X_j) / SD_j$$

Where, Z_i is the Z-score for the i^{th} unit,

X_{ij} is the x variable in the i^{th} unit and

j^{th} variable,

X_j is the mean of the j^{th} variable and

SD is the standard deviation of the j^{th} variable

After obtaining Z-score for every indicator, composite score was obtained by adding up all individual standardized data:-

$$C_i = \sum Z$$

Where, C_i is the composite score and

$\sum Z$ is the summation of Z-scores or standardized scores.

3. Variable Indicators

There are 20 variable indicators which can broadly be classified into six dimensions such as:-

- 1) Road length (in km)/density: there are four variable indicators such as total road length in the study area with the conditions of metal and un-metalled road and its density.
- 2) Number of vehicles registered: In this dimension, private and government vehicles registered during 2018-2019 considered as indicators.
- 3) Revenue collected: there are four types of revenue collected like road tax, fees and fines, passenger and goods tax and others.
- 4) Number of post offices like Head post office, sub-post office, branch post office, number of letter boxes (excluding those at post office) and number of village postmen (rural delivering staff).
- 5) Number of Mobile Connections (as on 31st march 2016-2017)
- 6) Number of newspaper by Periodicity, number of accredited journalist and number of electronic media registered.

Economic Survey of Mizoram (2013-2014) stated that 'Mizoram Public Work Department (PWD) is responsible for construction and maintenance of roads, bridges number of and building in the state'. Since road transport is the only mode of transport within the state, improvement of road network is the major key to achieve the development. Better connectivity enhances the environment for development and growth by reducing freight and passenger transport costs, and by providing quicker and safer access to all parts of the state. Improvement of roads communication network results in economic and social development, better access to health and education services for a large number of population especially for weaker section in the remote areas provided through lower transport cost and better facilities. As per the

Mizoram State Road Statistics, the total length of all types of roads in Mizoram as on 2017 is 5732.1kms and road density is 3.39. Out of the total road length, 3824.81 kms (66.72 per cent) is covered by metal and 1908.37 (33.29 per cent) un-metalled road. National Highway pass through all the districts capital except Mamit district. State Highway concentrated in the core areas and the southern tip of Saiha district is absence of state and district roads even it is function as a district headquarters which exposes that the conditions of roads in the far-flung areas are extremely poor. Village roads connected the district capitals, highest density of roads in the state found mostly in the administrative centers of Aizawl district with density of 5.63 followed by Champhai (4.73) and Lunglei (4.57) districts. The four districts of Mamit, Kolasib, Serchhip and Lawngtlai recorded as a density of 3.47, 2.28, 2.33 and 2.84. Saiha (1.32) district recorded lowest density of road.

As per the record of Statistical Abstract of Mizoram, 2017, the total vehicles of 16, 141 registered in Mizoram, of which 16, 013 (99.20 per cent) registered as private vehicles. Out of total vehicles, 73.02 per cent registered within the jurisdiction of District Transport Office, Aizawl. Only 8.12 per cent registered under Lunglei Transport Office. 5.17 and 4.40 per cent of the vehicles registered in the district of Kolasib and Champhai districts. Serchhip and Lawngtlai districts shares 3.00 and 2.91 per cent registered vehicles. Only less than 2 per cent vehicles registered in the districts of Saiha (1.95 per cent) and Mamit (1.38 per cent).

Number of post offices and its services tremendously increase for the development of society because of an important dissemination of information from core to periphery and its adjacent area. During 2016-17, there are 383 postal services like Head Post office, Sub-Post office, Branch post office with a number of 71 letter boxes and 368 village postman in the state. Out of the total postal offices, 29.76 per cent located in the district of Aizawl followed by Champhai district with a percentage of 16.18. 15.92 per cent concentrated in Lunglei district while other four districts like Lawngtlai, Saiha, Mamit and Serchhip shares below 10 per cent of post office in the state.

In the telecommunications aspects, there are 11, 30, 270 landline and mobile phone subscribers in different parts of Mizoram of which 51.14 per cent subscribers found in Aizawl district followed by 12.75 per cent in Lunglei district. Champhai district shares 8.63 per cent of subscribers and 8.42 per cent subscribers found in Kolasib district. Serchhip and Mamit districts shares a number of 6.03 per cent and 5.63 per cent subscribers in their respective area. The two districts of Lawngtlai and Saiha shares 4.58 and 2.78 per cent subscribers of landline and mobile phones. Newspaper is an essential instrument to development of human resources and capital formation promoting economic growth of the state. There are 105 newspapers and 131 journalists with 18 electronic media in the state of Mizoram.

4. Result and Discussion

The transport and communication development in Mizoram have been categorized into five levels such as very high, high, medium, low and very low level of development:

i) *Very high level of development:* Aizawl district score a value of 41.52 with highest rank amongst the districts which falls under very high level of development. Aizawl is the capital city of the state which provides an administrative function, better road transportation facilities, trade and commercial hub and opportunities of telecommunication and mass-media exposure. The district is well-equipped with communications like internet facilities, functionalities of post office, and active print and electronic media along with a number of accredited journalists. The score value of Aizawl district (41.52) is quite high as comparing with other districts in the state. It means that the development level in respect of transport and communication, Aizawl district is the most advanced, resourceful and proficient district amongst the study area. This advantage may perhaps bring a lot of socio-economic development and enhance knowledge of society to promote any developmental mechanism in certain grounds.

ii) *High level of development:* Two districts of Lunglei (2.13) and Champhai (0.25) categorize under high level of development. Lunglei is the largest and second most populous district in the state. Geographically, it plays an important role as it served a guardian of southern part of the state which makes an imperative function of administration, commercial and other services based upon the locational advantages. Champhai district is found in the eastern part with an international boundary of Myanmar, offers trade and commercial activities bringing earnest space for development. And, therefore, the district capitals (Lunglei and Champhai) perform as principal role in the perspectives of transportation and communication development from preceding events, produce administrative centers and providing services to the fringe areas.

iii) *Medium level of development:* Kolasib and Mamit districts fall in this category with a score value of -5.18 and -6.42. These two districts are bounded on the north by state boundary with Assam and Tripura, international boundary of Bangladesh in the north-west. They are the corridor of the state from mainland India and Bangladesh. Roadways and airways available in these regions which are quite essential for movement of passengers and goods from one place to another. Meanwhile, some parts of the districts found in isolated, remote and far-flung areas which could not provide better transport and communication facilities. It is still in an infantile stage.

iv) *Low level of development:* Serchhip district with a score value of -8.87 falls under low level of development. This district is located in the central part of the state but poor in transportation facilities. Some villages in this region experienced shortage of power and electricity which affects communication development.

v) *Very low level of development:* Lawngtlai and Saiha district score a value of -10.70 and -12.72, categorized under very low level of development. These districts found in the southernmost part of the state with certain low network of transportation facilities. There is a special administrative set up with autonomous district council under the provision of sixth schedule in the constitution. The administrative uniqueness, isolated and remoteness, concentration of large number of small ethnic groups provide distinctive characteristics of the region which brings flagging of transport and communication infrastructure development.

Table 1: Level of Transport and Communication Development in Mizoram

District	Score	Rank	Level	District
Mamit	-6.42	5		
Kolasib	-5.18	4	Very high	Aizawl
Aizawl	41.52	1	High	Lunglei, Champhai
Champhai	0.25	3	Medium	Kolasib, Mamit
Serchhip	-8.87	6	Low	Serchhip
Lunglei	2.13	2	Very low	Lawngtlai, Saiha
Lawngtlai	-10.70	7		
Saiha	-12.72	8		

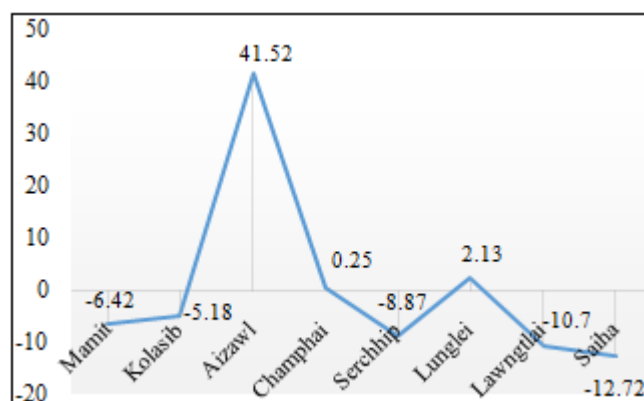


Figure 1: Level of Transport and Communication Development in Mizoram

5. Conclusion

The development of more advanced road networks, freight services and communication facilities made it easier to do business, investment, innovation, entrepreneurship and start up vocational designs across great distance, thereby enhancing the economy. However, imbalances of growth in these aspects promote disparity in the society. The present study reveals that the locational advantages and administrative functioning in the core or central part score the high value whereas the periphery and marginal areas score the low value. This paper suggests that initiatives should be taken in remote, rural and marginal areas of the state to reduce inequalities in respect of transportation and communication development. Without meaningful strategy tackling the problem and focus on rural transportation networks and mass-media fruition; sustainable and equitable development become an indispensable dream.

Table 2: Variable Indicators of Transport and Communication Development in Mizoram (2016-2017)

Sl No	District	Road Length (in km)/Density				Number of Vehicles Registered (Private)		Revenue collected from Road Transport (Rs in Lakhs)			
		Metal	Un-metalled	Total	Density	Private	Govt	Road Tax	Fess & Fines	Passengers & Goods Tax	Others
1	Mamit	537.35	191.56	728.91	3.47	223	0	38.98	11.58	9.82	4.85
2	Kolasib	401.00	78.46	479.46	2.28	835	1	131.15	12.78	77.78	107.92
3	Aizawl	825.88	361.74	1187.62	5.63	11672	115	1343.94	239.98	172.37	109.02
4	Champhai	576.18	422.29	998.39	4.73	714	0	78.66	39.73	23.35	0.12
5	Serchhip	289.09	203.29	492.38	2.33	484	1	54.25	20.37	12.27	0.24
6	Lunglei	729.43	236.56	964.99	4.57	1310	1	192.11	0.41	27.34	14.82
7	Lawngtlai	327.49	273.53	601.02	2.84	461	9	29.92	54.4	17.21	2.68
8	Saiha	138.39	140.94	279.33	1.32	314	1	48.57	0.26	8.04	0.1

Source: Statistical Abstract of Mizoram: 2017, Directorate of Economics & Statistics, Government of Mizoram

Table 3: Variable Indicators of Transport and Communication Development in Mizoram (2016-2017)

Sl No	District	Number of Post Offices, Postmen and Letter Boxes				Number of Village Postmen (Rural Delivering Staff)	Number of Mobile Connections (as on 31st march 2016-2017)	Number of Newspaper by Periodicity registered			
		Head Post Offices	Sub Post Offices	Branch Post Offices	Letter Boxes			Daily Newspaper	No of Periodicity	No of Accredited Journalist	No of Electronic Media
1	Mamit	0	4	31	8	36	63710.39	6	2	8	2
2	Kolasib	0	4	24	6	30	95218.57	11	1	11	3
3	Aizawl	1	15	98	25	95	578108	32	12	55	4
4	Champhai	0	4	58	8	63	97559.64	7	0	10	2
5	Serchhip	0	4	22	8	27	68266.41	7	3	11	2
6	Lunglei	0	4	57	8	61	144162.4	16	4	20	2
7	Lawngtlai	0	2	25	3	27	51806.33	7	0	5	0
8	Saiha	0	1	29	5	29	31438.18	7	0	11	3

Source: Statistical Abstract of Mizoram: 2017, Directorate of Economics & Statistics, Government of Mizoram

Table 4: Standardized value of Transport and Communication Development in Mizoram (2016-2017)

Sl No	District	Road Length (in km)/Density				Number of Vehicles Registered (Private)		Revenue collected from Road Transport (Rs in Lakhs)			
		Metal	Un-metalled	Total	Density	Private	Government	Road Tax	Fess & Fines	Passengers & Goods Tax	Others
1	Mamit	0.254	-0.417	0.040	0.051	-0.454	-0.399	-0.446	-0.449	-0.594	-0.515
2	Kolasib	-0.332	-1.422	-0.765	-0.758	-0.299	-0.374	-0.242	-0.434	0.603	1.601
3	Aizawl	1.498	1.094	1.518	1.518	2.465	2.468	2.457	2.406	2.273	1.623
4	Champhai	0.423	1.632	0.909	0.906	-0.328	-0.399	-0.358	-0.095	-0.356	-0.613
5	Serchhip	-0.815	-0.313	-0.721	-0.726	-0.386	-0.374	-0.411	-0.338	-0.550	-0.611
6	Lunglei	1.084	-0.017	0.801	0.798	-0.176	-0.374	-0.107	-0.587	-0.287	-0.311
7	Lawngtlai	-0.649	0.310	-0.373	-0.377	-0.392	-0.176	-0.467	0.087	-0.463	-0.560
8	Saiha	-1.463	-0.866	-1.409	-1.411	-0.430	-0.374	-0.426	-0.590	-0.626	-0.613

Table 5: Standardized value of Transport and Communication Development in Mizoram (2016-2017)

Sl No	District	Number of Post Offices, Postmen and Letter Boxes				Number of Village Postmen (Rural Delivering Staff)	Number of Mobile Connections (as on 31st march 2016-2017)	Number of Newspaper by Periodicity registered			
		Head Post Offices	Sub Post Offices	Branch Post Offices	Letter Boxes			Daily Newspaper	No of Periodicity	No of Accredited Journalist	No of Electronic Media
1	Mamit	-0.354	-0.175	-0.454	-0.130	-0.405	-0.431	-0.634	-0.186	-0.518	-0.215
2	Kolasib	-0.354	-0.175	-0.718	-0.425	-0.647	-0.255	-0.070	-0.435	-0.332	0.644
3	Aizawl	2.475	2.383	2.075	2.382	1.981	2.430	2.295	2.297	2.388	1.502
4	Champhai	-0.354	-0.175	0.567	-0.130	0.687	-0.243	-0.521	-0.683	-0.394	-0.215
5	Serchhip	-0.354	-0.175	-0.792	-0.130	-0.768	-0.407	-0.521	0.062	-0.332	-0.215

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6	Lungle i	-0.354	-0.175	0.530	-0.130	0.607	0.016	0.493	0.310	0.224	-0.215
7	Lawng tlai	-0.354	-0.640	-0.680	-0.867	-0.768	-0.498	-0.521	-0.683	-0.703	-1.931
8	Saiha	-0.354	-0.871	-0.528	-0.571	-0.688	-0.611	-0.521	-0.683	-0.332	0.644

References

- [1] Choudhury, Payel, Sen (2011) Media in Development Communication, Global Media Journal –Indian Edition, Winter Issue / December 2011 Vol. 2/No.2
- [2] Kumar, Krishna and AnjanSen (2014) Road Transport and Regional Development: A Case Study of Gaya District, Bihar, <https://www.researchgate.net/publication>, retrieved 6.12.2018, 10:19 p.m.
- [3] Rodrigue, Jean-Paul and Theo Notteboom (2017) The Geography of Transport Systems, Routledge (fourth editions), New York, pp 44
- [4] Sannoh, Fomba V. (2003) Mass Communication Role in Society, <http://fomba88.tripod.com/mypersonalsite/id17.html>, retrieved 8.12.2018, 11:58 a.m.
- [5] Sharma, Ashish and Deepak Uniyal (2016) Development Communication: Role of Mass Media and its Approach, Imperial Journal of Interdisciplinary Research (IJIR), Vol-2, Issue-11, 2016
- [6] Sommerland, E. L (1981) The Press in Developing Countries, Sidney, Sidney University Press.