## Need for Expansion of City Bus Services in Dimapur, Nagaland

### Leaders in Urban Transport Planning and Management Program-7 (2019)

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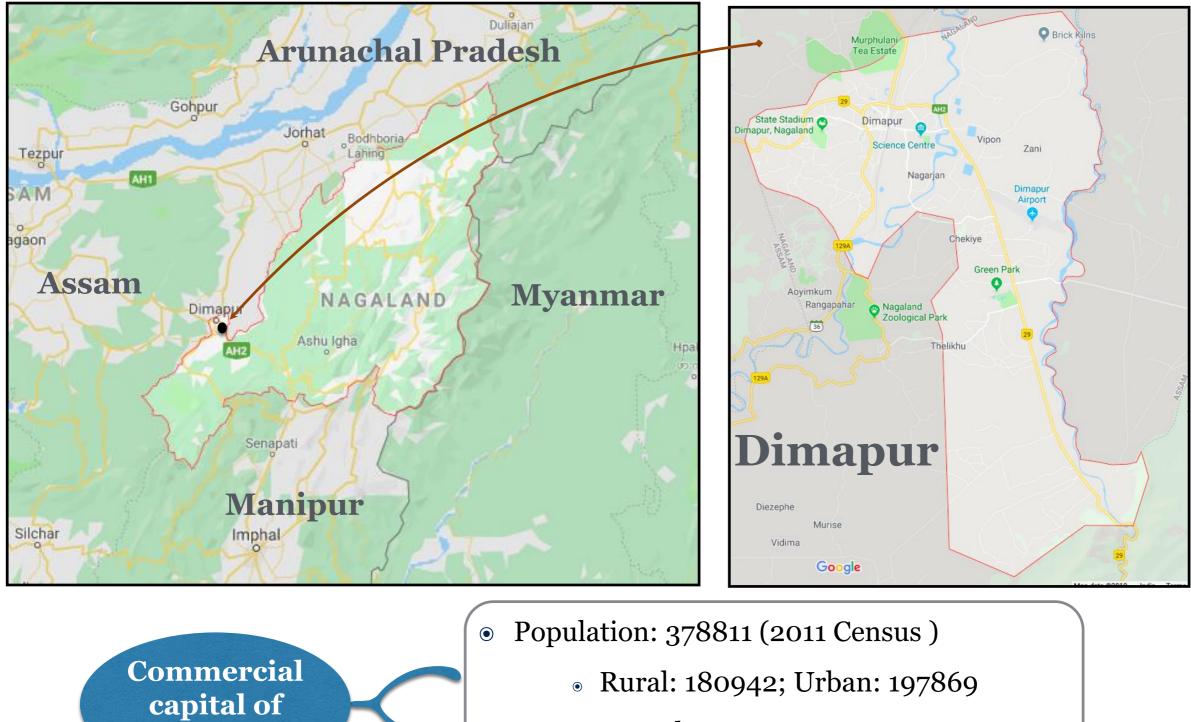


Ministry of Housing and Urban Affairs, GOI & The World Bank In association with The Centre of Excellence in Urban Transport, CRDF, CEPT University, Ahmedabad

Nagaland

#### **BACKGROUND AND RATIONALE**

#### **DIMAPUR, NAGALAND OVERVIEW**



- Area: 927 sq. km
- Altitude: 260 m above sea level

#### **CURRENT PUBLIC TRANSPORT SCENARIO IN DIMAPUR**

- ${\scriptstyle \odot}$  State lacks public city bus transport
- Unregulated and haphazard mushrooming of three wheelers autos rickshaws
  - Dominated the city public transport system
  - High fare and low safety
  - Extreme traffic congestion and pollution







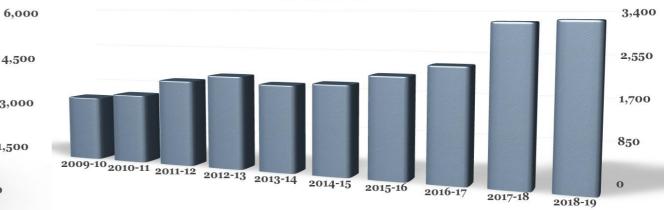


The chaotic and mushrooming of three wheelers transport in Dimapur

#### **D VEHICULAR GROWTH OF DIMAPUR**

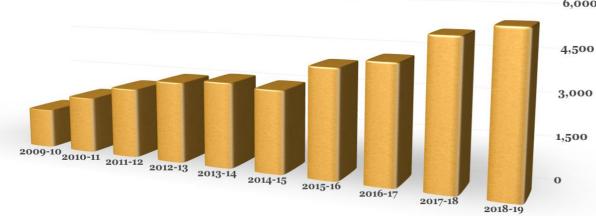
	Vehicle class	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Agricultural Tractors	4	4	89	4	1	7	5	1	9	0
2	Ambulance	0	0	3	4	7	5	2	1	3	0
3	Bus	10	18	11	16	17	19	30	42	55	53
4	Construction Equipment Vehicle	7	17	9	27	1	10	27	36	69	59
5	Crane Mounted Vehicle	7	9	27	3	29	16	6	7	0	0
6	Goods Carrier	241	340	461	419	357	317	384	436	526	776
7	Maxi Cab	11	8	16	19	21	20	7	21	17	55
8	M-Cycle/Scooter	1487	2108	2598	2983	3116	2992	3900	4190	5136	5489
9	Moped	2	1	2	8	13	26	46	60	92	26
10	Motor Cab	16	14	8	18	14	20	12	8	15	49
11	Motor Car	1402	1506	1867	2008	1862	1915	2125	2358	3218	3262
12	Three Wheeler (Goods)	19	36	4	4	1	4	6	16	64	13
13	Three Wheeler (Passenger)	212	436	664	834	935	680	1236	604	529	878
	TOTAL	3418	4497	5759	6347	6375	6031	7788	7780	9733	10662





Motor Car

Increase of Motor Cars over the span of 10 years in Dimapur



Exponential growth of Motor Cycle/Scooter over the span of 10 years in Dimapur

#### **ROAD ACCIDENTS OF DIMAPUR**

Year	2013	2014	2015	2016	2017	2018	2019(upto June)
No of Accidents	131	149	204	183	157	138	147
No of Fatalities	23	44	22	18	11	13	10

Source: Dy. Commissioner of Police, Traffic Dimapur: Nagaland

- Most accidents involved are stated to be two wheelers and three wheelers
- Besides, the above official record, there are numerous accidents cases involving especially two and three wheelers which remain unrecorded due to varied reason.

Attributed to an Absence of a dedicated and reliable Public Transport System in Dimapur

#### **DIMAPUR CITY BUS SERVICES**

#### **OVERVIEW**

- Nagaland State Transport (NST) Department has introduced Dimapur City Bus service in September, 2018
- Fleet of 9 (nine) renovated mini buses of 32 seater (sourced from erstwhile JNNURM Mini Buses allotted for Kohima Municipal Council in the year 2011)
- Covering a distance of 16 KM starting from NST Bus Station/Railway Station to Chumukedima Town
- 20 (twenty) designated bus stoppages.

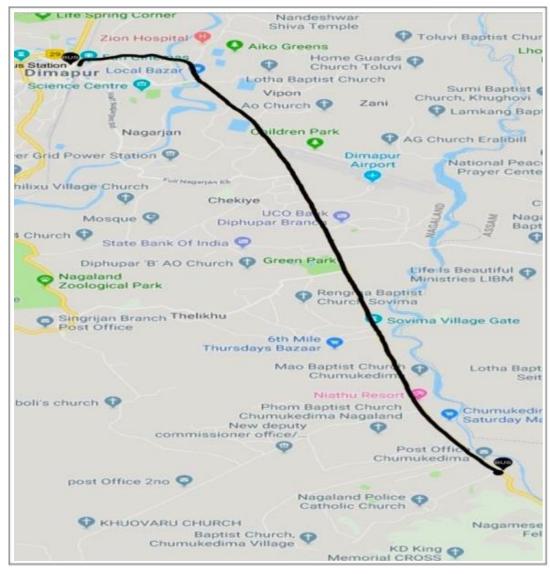






Inauguration and present running of the city bus service in Dimapur

#### **ROUTE DETAIL**



• Existing route Details

- Nagaland State Transport Department, ply 6-7
  buses per day covering 6-8 trips per bus carrying an average of 950 passengers per day
- The major stakeholder in public mode of transport presently are the auto rickshaws, they even have a well established Auto Rickshaw Union.
- Approximately 1000 (one thousand) auto rickshaws plying daily in between Dimapur to Chumukedima covering an average of 4 (four) trips daily, carrying around 8 (eight) passengers per trip with fare of Rs. 40/per passengers.
- The above estimation revealed that 24000 (twenty four thousand) passengers commute daily via Auto Rickshaws in the above route.

	Distance	Charges (In INR)
	Upto 2 Kms	Rs. 5/-
	Upto 5 KMs	Rs. 10/-
0	Upto 10 KMs	Rs. 15/-
	Upto 15 KMs	Rs. 20/-
	Upto 20 KMs	Rs. 25/-

**FARE STRCUTURE** 

7

#### **DESIGNATED BUS STOPPAGES**

Designated Bus Stoppages	Distance from originating place(KM)
Dimapur NST Station	0
Burma Camp Police Point	1.10
Zion Hospital Junction	2.50
Hollohon Petrol Pump/Purana Bazar	3.0
Naharbari Junction	3.80
Padumpukuri Gate	4.40
Aoyimti Junction	5.30
ASTC Gate	6.00
Chekiye Village Gate	6.50
Airport Junction	7.00
Diphuphar B Gate Junction	7.80

#### **OPERATION DETAILS**

Month	No of Buses operate d daily	No of Trips performed per day per bus	Total revenue collected	Total No of passengers ferried
w.e.f 15 <sup>th</sup> Sept 2018	6	6	65600	4590
Oct 2018	7	8	403760	27156
Nov 2018	7	6	263530	17716
Dec 2018	5	6	179990	12206
Jan 2019	7	6	219780	13258

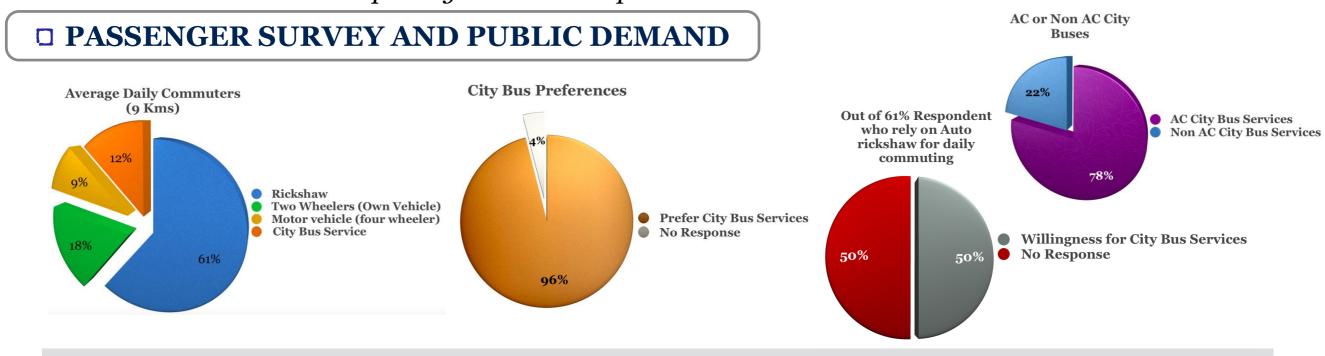
Designated Bus Stoppages	Distance from originating place(KM)
Central Jail Junction	8.50
Green Park Junction	9.10
Unity Village/Labour Village Jn	9.50
Bamboo Mission Centre	10.50
Sovima Village Gate	10.90
7 <sup>th</sup> Mile Model Village Junction	11.20
Tenyiphe Gate	12.10
Khovarii Road Junction	13.40
Chumukidema Bazar	13.90
2 <sup>nd</sup> Gate Chumukidema	15.00
1 <sup>st</sup> Gate Chumukidema	15.60

Month	No of Buses operated daily	No of Trips performe d per day per bus	Total revenue collected	Total No of passengers ferried
Feb 2019	8	6	290855	20035
March 2019	6	6	319990	21247
April 2019	6	6	225505	14939
May 2019	7	6	457145	29316
June 2019	8	6	454930	29985
July 2019	7	6	478325	29177

#### **EXPANSION REQUIREMENTS OF THE CITY BUS DIMAPUR**

#### **SIGNIFICANCE**

- Becoming very popular and significant for public transport: *Reliable and Cheap*
- Revenue generation has been very consistent: *Directly correlated with No. of buses in operation and the No. of trips covered daily*
- In recent months (May-July 2019): With lesser buses in operation with same number of trips, the revenue income has been very encouraging, which predicts that the demand for the city buses are appreciated and becoming more significant in the city.
- Evident from the passenger ferried: *The numbers are very significant and promising, which can be attributed to the fact that the public have adopted and being adopting with a dedicated and reliable Public Bus Transport system in Dimapur.*



Random sampling of 250 respondents cutting across the section of the community ranging from school and college students, office goers, business man, daily wage earner, housewife and intellectuals.

#### **PROPOSED EXPANSION AND ASSESSMENT OF BUS FLEET**

- The public transport bench mark for the Cities as designed by Ministry of Urban Transport (Present MoUHA) mentions the requirement of 40 buses per lakh population, this necessitates additional requirement of 140 buses to meet the services level benchmarks MOUD.
- Also In a move to recognise and act upon urban mobility issues, in 2006 the GOI introduced the National Urban Transport Policy (NUTP), setting the policy framework for providing sustainable mobility for the future
- Therefore, considering the existing infrastructure and passenger travel demand it proposes to procure 40 numbers of Midi/Mini buses with following configuration:

Mini Bus 32 Seater AC - 20 (Twenty)

Mini Bus 32 Seater Non AC- 20 (Twenty)

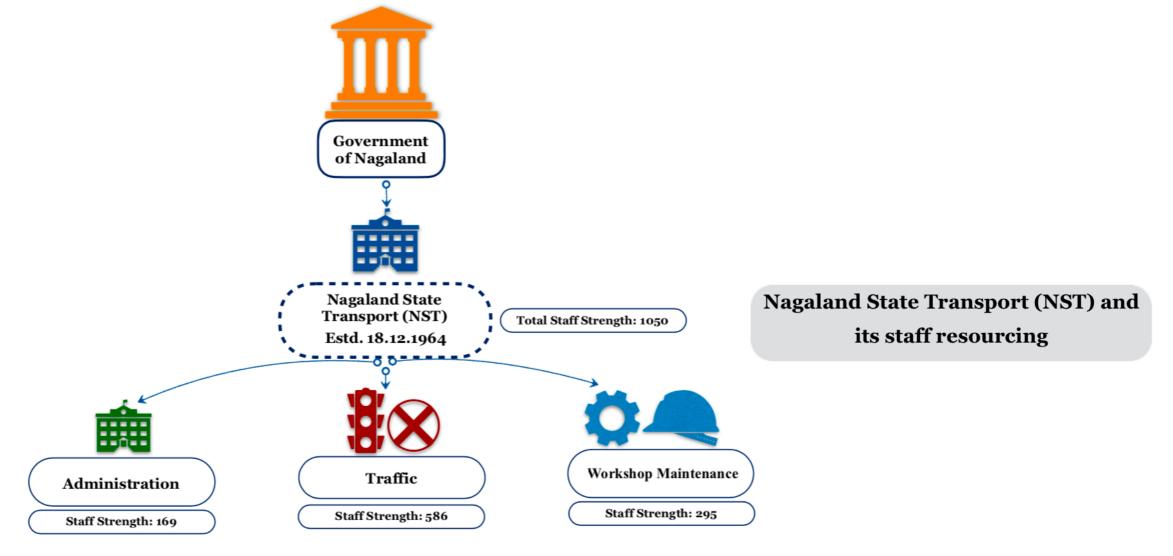
#### **D PROPOSED PLY ROUTE, SCHEDULE AND STOPPAGES**

<b>Stoppage and Stations</b>	Number of Buses
NST Bus Station to Midziphema	4 (Four) AC Buses
NST Bus Station to Chumukedima	12 (Twelve) AC Buses
NST Bus Station to Chumukedima	6 (Six) Non AC Buses
NST Bus Station to Dillai Gate	4 (Four) AC Buses.
NST Bus Station to Doyapur	5 (Five) Non AC Buses.
NST Bus Station to Nuiland	5 Five) Non AC Buses
NST Bus Station to Bokajan	4 (four) Non AC Buses

Stoppage and Stations [AC Buses]	Distance (Km)	Trips per bus per day
NST Bus Station to Midziphema	32	6
NST Bus Station to Chumukedima	16	10
NST Bus Station to Dillai Gate	7	14
Stoppage and Stations [Non AC Buses]	Distance (Km)	Trips per bus per day
[Non AC Buses]	(Km)	bus per day
[Non AC Buses] NST Station to Chumukedima	(Km) 16	bus per day 10

#### **OPERATION AND MANAGEMENT**

- Set up on 18.12.1964 by the Govt. of Nagaland with the objective to provide passenger bus services as a public utility in order to accelerate the process of socio-economic development of the hill state of Nagaland.
- Monitor, Operate and Manage the City us Service in Dimapur
- Experienced, facilities and the existing data base for further expansion.



#### **INST EXISTING BUS DEPOT AND PROPOSED CITY BUS DEPOT SITES**



Nagaland State Transport (NST) Existing Bus Depot



Need for Expansion of City Bus Services in Dimapur Nagaland

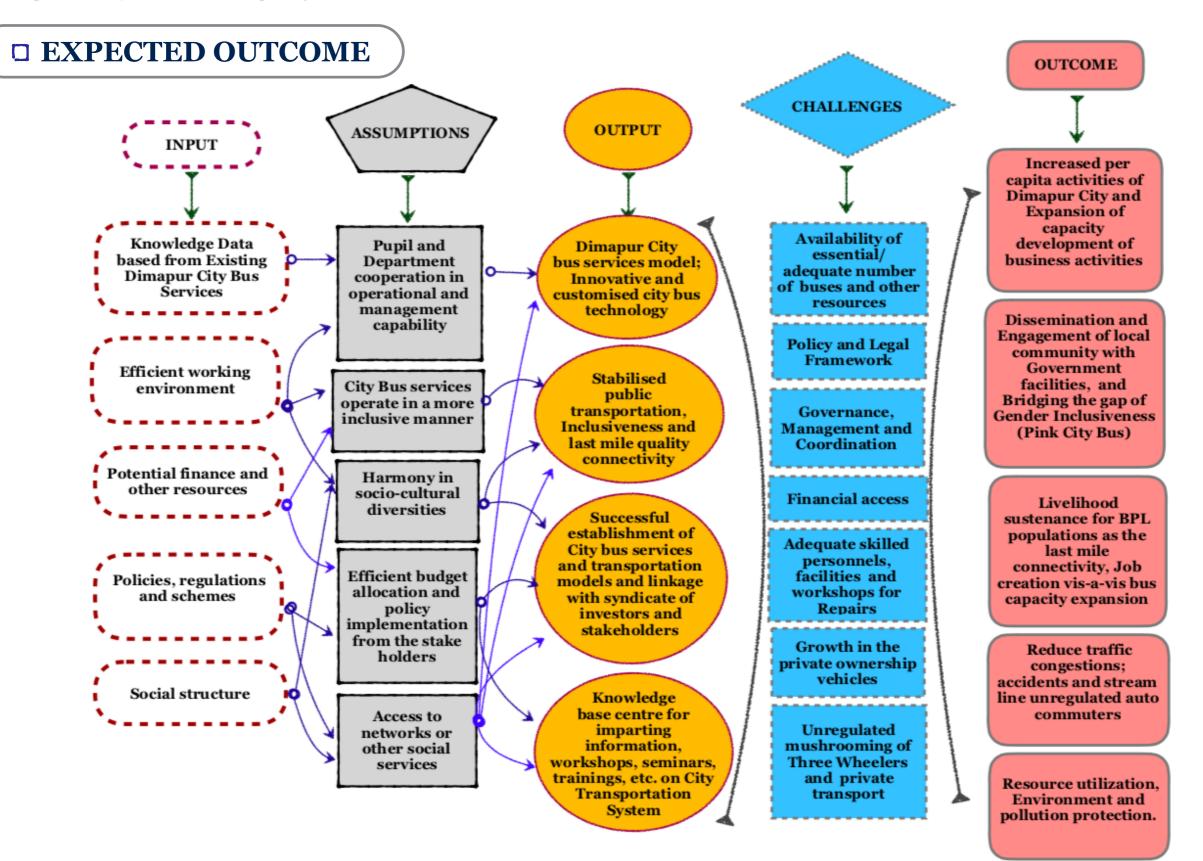


Illustration of the Input, Assumptions, Output, Challenges and the Outcome through the Expansion of the Dimapur City Bus Services

# **THANK YOU**