

# TRANSPORTATION PROBLEM AND POSSIBLE SOLUTIONS FOR TIRUPATTUR TOWN

T. Selvam

Assistant Professor

PG & Research Department of Social Work

Sacred Heart College (Autonomous), Tirupattur, Vellore Dt., Tamil Nadu, India

**Abstract:** Transportation is the movement of human beings, animals and goods from one place to another place. It is important because it enables trade between people and it is essential for the development of civilizations. This particular paper discusses the transportation problem of a Town namely 'Tirupattur'. It is located in the district of Vellore, Tamil Nadu, India. The study discusses history, geography, regional identity, population, and transportation problem of the town. The study also proposes possible solutions to the transportation problem. The proposing solutions are restriction of heavy vehicles, redesigning of bus stand, parking restrictions, limiting the operation of share autos within the town, effective implementation of sewage scheme, traffic signals, traffic police, and flyover. These solutions could help the town in fostering traffic regulation with improved conditions.

**Keywords:** *Transportation Problem, Transportation Restriction, Tirupattur, Town Transportation, and Solutions for Transportation Problems.*

## I. INTRODUCTION

Transport infrastructure is one of the most important factors for a country's progress (The Economic Times, 2016). Tirupattur is one of the fast growing towns in the district of Vellore, Tamil Nadu state, India. It is not well planned town. Therefore, there are many problems such as Traffic congestion, deplorable road conditions, lack of industrial development and widespread unemployment, etc., existed in the town for several years (Serena, 2011). These problems always challenges to economic growth of any town. This particular study addresses one of the important challenges of the town that is transportation. It discusses the transportation problem elaborately and it proposes some possibilities to face the challenges based on the analysis with the help of primary and secondary data.

## II. STATEMENT OF THE PROBLEM

Problem of this particular study is to find answers to the research questions which are, a) how does the transportation of Tirupattur town has become a problem? b) How does the problem can be rectified? Answers for these research questions would help to improve the transportation in the Town.

## III. OBJECTIVES

The objectives of the study as follows,

- a) To know the history of the town
- b) To analyze the geographical factors of the town
- c) To know the regional identity of the town
- d) To aware of population in the town
- e) To understand the transportation problem of the town
- f) To suggest possible solutions for the problem

## IV. METHODOLOGY

It is an exploratory study. It follows qualitative methods and direct observation technique to collect primary data. Secondary data have been collected form journal article, reports, article form periodical and websites. Google map has also been used to analyze and interpret the data. Findings and suggestions may apply to Tirupattur Town only.

## V. TIRUPATTUR TOWN

**History:** It is one of the Indian Towns which is located in the district of Vellore of Tamil Nadu State. Tirupattur comprises of one of the oldest municipalities in Vellore district (Serena, 2011). It is known as "Sandal City" for its rich and pure sandal woods. It is located about 222 km away from the state capital Chennai. According to Archeological Survey, Tirupattur town is more than 1600 years old. During the regimes of various rulers like Cholas, Vijaya Nagara Dynasty, Hoysalas the town had been referred with varies names. The names were Sri Mathava Chaturvedi Mangalam, Veera Narayana Chaturvedi Mangalam, Tiruperur and Brahmapuram (Brahmeeswaram). The present name Tirupattur might have derived from Tiruperur. Erstwhile Tiruperur or Sri Madhava Chaturvedi

Mangalam was in Eyyil Nadu, subdivision of Nigarili Chola Mandalam, division of Chola Empire. There existed a fort in the eastern part of the town around 800 years ago. Its entrance might have been near the Kottai Darwaja Sri Veera Anjaneyar Temple, since the word "Kottai" in Tamil means "Fort", and the word "Darwaja" in Hindi/Urdu means "Gate" or "Door". The area is still known as "Kottai" (Fort). The Town was ruled by Cholas, Pallavas, Hoysalas, Vijaya Nagara rulers, Vallala Maharajan, Sambuvarayars, Tipu, Nawabs of Arcot and the British people. Below figure is the view of Tirupattur town (Google map – satellite view).



Figure – 1: Tirupattur Town View

**Geography:** Tirupattur town is situated at a distance of 87km South – West of Vellore and 216 kms South – West of Chennai. The Town is located on the western border of Vellore District. Tirupattur town is situated at 78 – 34” East Longitude and 12.20” North Latitude. The nearest Air port is Bangalore and nearest harbour is at Chennai. The general topography of the town is almost even with an average elevation of 384 meter above mean sea-level. The general terrain of the land sloping from North to south. The Elagiri Hill station is located at a distance of about 24 kms in North-East direction of the Town. It is called as poor-men Ooty. The maximum temperature during summer is 39°C and during winter it is 30°C. The minimum temperature varies from 24.5°C to 26.0°C. The mean humidity is 70.2%, which varies from 61.6% to 78.8%. The seasonal climate conditions are moderate and the weather is uniformly salubrious (Tirupattur Municipality, 2005).

**Regional Identify:** Tirupattur is a Municipality and it was constituted as a third grade municipality in the year 1886. As per G.O. No. 194, date: 10.02.1970, classified as Second Grade Municipality. From 01.04.1977 the municipality upgraded as first grade municipality as per G.O. No. 654. After that, Thirupattur Municipality was upgraded as Selection Grade Municipality, as per G.O. (Ms) No. 283 of MA. & WS. Department, dated 02.12.2008. and it is functioning in the same grade as on date (Tirupattur Municipality, 2005)

**Population:** Tirupattur Town has population of 19,487 of which 9,782 are males while 9,705 are females as per the report of Census India 2011. Children population with the age of 0-6 is 2321 which is 11.91 % of total population. Female sex ratio is of 992 against state average of 996. Child sex ratio is around 1011 compared to state average of 943. Nearly three fourth (71.93%) of population belongs to Hindu religion, 26.40% belongs to Muslim religion, 1.52% belongs to Christian religion, 0.03% belongs to Buddhist religion and 0.02% belongs to Jain religion. Tirupattur Town has total administration over 4,419 houses. Literacy rate is 82.17% higher than state average of 80.09%. Male literacy is around 87.84% and female literacy is around 76.45%. The town acts as an “urban magnet” to radius of 20 to 25 km. There are around 200 villages are depending on this town for their needs. It is the hub for trading of agricultural products of those villages (Census 2011, 2015).

## VI. TRANSPORTATION PROBLEM

There are four district capital cities located within 100 kms distance to Tirupattur Town. The cities are Vellore, Thiruvannamalai, Krishnagiri and Dharamapuri. People from Tirupattur town are accessing those cities for various purposes such as business, education, employment and other official matters. Tirupattur has got only one main road that too passes through the town. Tirupattur Bus Stand is also located in the middle of the town. The town has got offices like sub-collector office, district education office, revenue department, sub-registrar’s office, block development office, police station, municipal office, government hospital, health department, fire station, cinema theatres, post office, banks, schools, etc., All these offices are located near by the main road. People from surrounding villages are accessing these offices for various needs. Example: self help group women are coming to the town for accessing banks, block development offices, etc., Children are coming to schools, farmers are coming to the town for agricultural needs, aged people are coming for their pensions and hospitals and people are coming for registration department for registration of land, plot., etc., They also

often access the revenue department for obtaining certificates such as death, birth, community, etc., People from neighbouring villages visit the town for such purposes. Most of the offices in the town start work between 09.00 am and 10.00 am and close between 04.30 pm and 05.30 pm. There are 33 schools located in the town. There are two colleges existing in the town. Most of the schools have their own school buses. Most of the schools in the town start functioning between 08.30 am and 9.30 am and they close between 03.30 pm and 04.30 pm. Generally people are going for purchase and other needs after their office hours only. Mostly it happens between 05.30 pm to 09.30 pm. Tirupattur town is located between two important cities which are Salem and Vellore. Almost all commercial vehicles starting from Salem and Vellore have to pass through this town to reach Vellore and Salem respectively. Salem is known for steel industries. Salem city has been accessed often for steel need of other industrial places like Chennai, Ranipettai, etc., Because of these situations, the main road has been accessed heavily. It is observed that the main road is busy from 7.30 am to 9.30 pm. Therefore traffic congestion has become high during these hours in the town. There are no proper and effective efforts by any respective administration so far to regulate the traffic congestion. Now and then the municipal administration takes steps towards improving the transportations in the town that too an improper and an ineffective manner. Hence transportation of the town has become problem now and is badly felt by the people in the town.

## VII. POSSIBLE SOLUTIONS

**Restriction for Heavy Vehicles:** since long time this regulation has been effective in the town. But the duration of restriction is not very appropriate. The present restriction effectives from 08.00 am to 08.00 pm only. Heavy Vehicles which have to pass through the town are not allowed between these hours. As per the Road Safety Meeting Action Plans, Tirupattur, Vellore Dist. Dated 11.03.2017 point no.7 clearly says that “From 8.00AM to 8.00 PM, outstation heavy vehicles are restricted to enter into Tirupattur town to avoid the congestion happening in the urban settlements of Tirupattur town and to reduce the accidents along the corridor in SH 18 and to ensure the road safety” (L&T IDPL, 2017). This arrangement is not sufficient enough. As per the observation of this study, traffic starts from 7.30 am and ends at 9.30 pm. Therefore the restriction time bound has to be broadening to little more. The restriction may be established from 7.00 am to 10.00 pm. It could be more appropriate in the view of this study.

**Redesigning of Bus Stand:** excising arrangement for present bus stand is not up to the mark. Recently, the local administration allocated two bus stands at Tirupattur town. One is (denoted with ‘1’ in the below figure) for (North direction) towards Vellore and another one is (denoted with ‘2’ in the below figure) for (South direction) towards Krishnagiri, Dharmapuri, Thiruvannamalai, and Salem. The below map (Google map - satellite view) could help to understand the position of the two bus stands.



Figure – 2: Tirupattur Bus Stands View

The decision of dividing the bus stand into two by the local administration is welcomed and it is appropriate also. It may be helpful in regulating the people movement in the place. Still, this arrangement does not meet the requirements. Because the ‘in’ and ‘out’ ways of these bus stands still confuses. So the traffic in the point has not been regulated for buses. Below figure shows the present ‘in’ and ‘out’ arrangements of the bus stands.



Figure – 3: Tirupattur Bus Stands: Way 'In' and 'Out' Arrangements

Marked with '1' and '2' in the figure – 3 shows the confusing traffic areas with the existing 'in' and 'out' arrangements of Tirupattur Bus stands. These two points are the junctions. There are no traffic signals in these junctions. In these junctions, buses with opposite directions are meeting often. Therefore, there is a possibility for traffic jam. The study proposes the following design of 'in' and 'out' arrangements which avoids junctions.



Figure – 4: Tirupattur Bus Stands: Proposed Way 'In' and 'Out' Arrangements

This study proposes the above (Figure – 4) design of way 'in' and 'out' arrangements. The design avoids junctions. In this design, no buses meet with opposite direction. Therefore traffic jam will be minimized. It is more effective when it is implemented along with the proposed heavy vehicle restriction plan. It is one way of solving the traffic problem in Tirupattur Town.

**Parking Restrictions:** main road has shops, vegetable market, offices, hotels, etc., on its both sides. People are parking their vehicle in the road side to access these shops. Hence the traffic problem occurs. 'No parking' could be declared for main road. As a result, the vehicle movement will be fostering and traffic can be regulated with improved conditions.

**Limiting the Operation of Share Autos:** Another challenge is, the function of 'share auto' in the town. 'Share auto' is useful to reach neighbouring villages. It is the benefit of 'share auto' in the town. Simultaneously, it is one of the sources for traffic issues in the town. They use the main road and they stop here and there to pick up passengers. So other vehicles which come behind the 'share auto' got struck in moving with their track. Therefore traffic problem arises. It is better to operate 'Share autos' from outside of the Town. At the same time, people are coming to hospital from neighbouring villages has to be given special arrangements to reach the hospital. Otherwise it will involve additional expenditure. Sometime it may not be affordable to them especially for rural poor.

**Underground Sewage Scheme:** The Tamil Nadu Water Supply and Drainage Board (TWAD) had commenced the works to lay sewage pipelines in mid-2015. All most all the roads in the town have been damaged to install the pipe under the scheme. But they are not clearing the sight properly. After interment of the pipes, the pit is not sealed appropriately. Therefore, almost all the roads have ups and downs. When these roads are used, the whole area covered with dust. This environment may affect the respiratory system of people. Traders and merchants in town came together to vent their ire against official apathy by closing their shops and businesses on 20.12.2017 to draw the attention of the government towards the inordinate delay in implementing the underground sewage scheme (The Times of India, 2017). Since the roads have ups and downs, vehicles movement is also slowed down and causes for traffic problem in the inner roads of the town. Therefore any project is implemented which has to implement with appropriate plan and efficient manpower. It will avoid traffic problem in the inner streets of the town.

**Traffic Signals:** Tirupattur has few road junctions. These junctions need traffic signals. The town has already traffic signals, but all these signals are out of order. It has to be rectified and should be made it functional. It will help to control and regulate the traffic in the town.

**Permanent Traffic Police:** Tirupattur is one of the fast growing towns in the district. According to its growth, infrastructure facility has to be established. Traffic police facility is one of the important facilities for the town. The town has few traffic polices. Whenever need arises, the regular police act as traffic police for some times. But it is not sufficient. The town needs permanent and sufficient traffic police to regulate the traffic in the town effectively.

**Flyover:** it is one of the remedy for Tirupattur town traffic problem. It will help the heavy vehicles to pass the town without disturbing the town. This infrastructure is quit costly but it will help the town in controlling the traffic issues for very longer period. The flyover is to be constructed about 2.25 kms. Out of this 2.25 kms, 1 ½ kms witnesses a lot of congestion (Serena, 2012). The flyover may be planned to start from entrance of the town in the north side. And it may be ended with two points. One is in the Krishnagiri road near Periyar Nagar. And another point may be ended at Salem road near Government Bus Depoe.



Figure – 5: Proposed flyover in Tirupattur Town

This present study proposes a flyover facility with said range to minimize the traffic congestion in the town. The above figure – 5 represents the proposed flyover as lay out. It is also better to have pillar type flyover because the main road has many cross roads that connects the streets and inner roads of the town. Therefore the study suggests that pillar type flyover could be more appropriate for Tirupattur Town.

### VIII. CONCLUSION

Proper infrastructure especially road facility for transportation is very important parameter for economic development of any place (Ivanova & Masarova, 2013). Tirupattur town is one of the fast growing towns in the region. The transportation of the town is one of the big challenges to his growth. It needs effective plan efficiency in implementation. Therefore it is an appropriate time to pay attentions on the transportations for the healthy growth of the town. In that way, the present study fulfills the objectives by addressing

the problem with possible solutions. It could be an eye opener for municipal administrators, town planers and local governments. Outcome of this study would help for further studies to have more solutions for the problem in scientific manner.

#### REFERENCES

1. Census 2011. (2015). Tirupattur Population Census 2011. Retrieved January 25, 2018, from Census 2011 Website: <http://www.census2011.co.in/data/town/631161-tirupattur-tamil-nadu.html>
2. Ivanova, E., & Masarova, J. (2013). IMPORTANCE OF ROAD INFRASTRUCTURE IN THE ECONOMIC DEVELOPMENT AND COMPETITIVENESS. *ECONOMICS AND MANAGEMENT* , 18 (2), 263-274.
3. L&T IDPL. (2017). Traffic Advisory Services for Krishnagiri - Thoppur section of NH-44 in the State of Tamil Nadu. Delhi: Delhi Integrated Multi-Modal Transit System Ltd. .
4. Serena, M. J. (2012, April 18). Curbs on heavy vehicles planned in Tirupattur town. Retrieved January 25, 2018, from The Hindu: <http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/curbs-on-heavy-vehicles-planned-in-tirupattur-town/article3326661.ece>
5. Serena, M. J. (2011, April 5). Tirupattur 'in Neglect'. Retrieved January 25, 2018, from The Hindu: <http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/Tirupattur-Isquo-in-neglect/article14671407.ece>
6. The Economic Times. (2016, February 10). Why Transport Infrastructure is Most Important for Country's Progress. Retrieved January 25, 2018, from The Economic Times Website: <https://economictimes.indiatimes.com/why-transport-infrastructure-is-most-important-for-countrys-progress/articleshow/50865730.cms>
7. The Times of India. (2017, December 21). Businesses shut shop in Tirupattur town in protest against drainage project delay. Retrieved January 26, 2018, from Times of India: <https://timesofindia.indiatimes.com/city/chennai/businesses-shut-shop-in-tirupattur-town-in-protest-against-drainage-project-delay/articleshow/62186098.cms>
8. Tirupattur Municipality. (2005). About City. Retrieved January 25, 2018, from Tirupattur Municipality Web site: [http://123.63.242.116/thirupathur/abcity\\_city.htm](http://123.63.242.116/thirupathur/abcity_city.htm)
9. Tirupattur Municipality. (2005). About Municipality. Retrieved January 25, 2018, from Tirupattur Municipality Website: [http://123.63.242.116/thirupathur/abus\\_municip.htm](http://123.63.242.116/thirupathur/abus_municip.htm)

