

## Implementation of Bogor City Government Policy in General Transportation Mobility

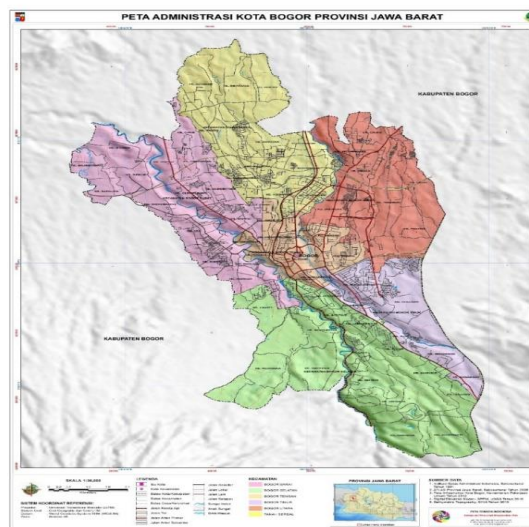
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**Abstract:** The city of Bogor has been named the second most populous city in the world by GPS navigation software app. Until now, congestion in the city of Bogor has not been fully resolved and this problem occurs because city transportation (angkot) is contrary to the policies of the Bogor city government. The number of city transportation recorded by DisHub Kota Bogor is around 3,412 units. As a result, congestion in the city of Bogor is common in every area of the city of Bogor. This study aims to determine the impact of congestion in Bogor City, as well as the causes of ineffective Bogor city government policies, and find solutions to overcome problems caused by traffic congestion in Bogor City. This study uses qualitative data. Data collection is done by observation, interviews with purposive sampling method to measure the policy of the Bogor city government. The results of the research, from 100 respondents from Bogor city community, 70% stated that the policy implementation of the Bogor city government had no effect on traffic congestion so the implementation of the policy should be revoked so as not to cause social impacts for the people of Bogor City

**Keywords:** general transportation mobility, traffic, congestion

### 1. Introduction

Indonesia is the fourth most populous country in the world and according to Badan Pusat Statistik(BPS), the population of Indonesia in 2018 reaches 260 million. The large number of residents certainly causes activity which results in congestion occurring in various road segments. The city of Bogor, known as the city of a million angkot, is located 59 km south of Jakarta, and this area is in the middle of the Bogor Regency area. The development of Bogor city area from 21.56 km<sup>2</sup> up to now has grown to 118.50 km<sup>2</sup> and its population is 1,067,687 people (2017).



Source : GPS Navigation Google

The people of Bogor City who carry out activities every day depend on city transportation to facilitate their activities. According to the Government Regulation of the Republic of Indonesia Number 41 of 1993 concerning Road Transportation, public transportation is the transfer of people and / or goods from one place to another using motorized vehicles provided for public use at a fee. According to Minister of Transportation Decree No. KM.35 of 2003 concerning the Implementation of Transportation of People on Roads by Public Vehicles: Transportation is transportation from the transfer of people and / or goods from one place to another by using a vehicle

On the other hand, the increasing number of public transportation (City Transport) and inadequate volumes of roads have created various problems, one of which is congestion. Congestion can be defined as a condition where the traffic flow that passes on the road that is reviewed exceeds the capacity of the road which results in the free speed of the road being close to 0 km / hour which causes the queue to occur. At the time of congestion, the value of the degree of saturation on the road will be reviewed where congestion will occur if the value of degree of saturation reaches more than 0.5 [1] .The density of vehicles in the city of Bogor has already been felt, the local Road Traffic and Transport Service (DLLAJ) noted that the number of city transportation in Bogor reaches 3,412 units with 30 routes. with 'chaos' road users including street vendors and congestion including the impact on their environment. The level of congestion in the traffic flow is a measure used to determine the condition of the level of congestion on the road segment that is determined by the level of road service. [1]

Condition of congestion level must have a concept to determine how the flow of traffic is good from each road segment. The rates charged to passengers vary depending on the distance traveled. Generally, Public Transportation(City Transport) is filled by around 10 passengers, but not infrequently passengers are more than 10 people. The behavior of Public Transportation (City Transport) drivers who often stop suddenly and in any place is often associated with the causes of congestion. Sometimes city transportation is always pulled over for a long time to wait for passengers. The city transportation operation pathway can be known through color or code in the form of letters or numbers on the body. The picture above is an example of city transportation that stops on any road, causing traffic jams. this must be addressed immediately, because it will have an impact on the people of Bogor City The following are data routes / routes found in the city of Bogor.

**Table 1.** City transportation route.

1. Cipinang Gading-Perumahan Yasmin	5. Salabenda- Pasar Anyar
2. Warung Nangka – Lawang Saketeng /Bogor Trade Mall	6. Villa Mutiara – Pasar Anyar
3. Cimahpar – Bogor Trade Mall	7. Bina Marga – Tanah Baru – Pomad (Ciluar)
4. Cimahpar – Warung Jambu	8. Ciheuleut – Bogor Trade Mall
9. Bina Marga – Pomad (Ciluar) Via Jl. Rd.Hanafiah, Rambay	

To overcome the problems of city transportation, Bogor city government has tried to provide policies, namely the shift system. According to the Van Meter & Van Horn [2], interpreting the implementation of policies is actions carried out by individuals or groups of

government or private sector aimed at reaching the goals set from previous policy decisions. From this definition it can be concluded, policy implementation is an effort that is done after the policy is implemented. With certain stages in activities that are managed and regulated to achieve the stated objectives

System shift is a policy made by Bogor city government. With this system, city transportation vehicles are divided into working hours for the purpose of avoiding densities in Bogor City. The shift system is intended to reduce the cost of maintaining public transportation and reduce the cost of depositing city transportation drivers. At first, this policy was effective, but this policy did not last for a long time due to the lack of firmness from Bogor city government to oversee city transportation mobility and lack of awareness from the city transportation drivers. In obeying the policies provided by Bogor city government The purpose of this research is to find out the impact of congestion in the city of Bogor, the factors that cause congestion in Bogor city, and to find the solutions to overcome traffic congestion in the city of Bogor

## **2. METHOD**

The type of method I use is a qualitative method. Qualitative is an approach also called the investigative approach because researchers usually collect data in face-to-face and interact with people in the research area[3]. Qualitative research can also be intended as a type of research whose findings are not obtained through statistical procedures or other forms of calculation [4].

Data collected from qualitative research makes it possible to analyze it through calculations. In this study, the method used to find a solution to the problem is the collection of primary data, from data obtained from the secondary source which is from the Central Bureau of Statistics, the Institution. The primary data we collected through a questionnaire and interview with 100 respondents obtained from the people of Bogor and around Bogor Agricultural University which have ages 16 to 44 years. Sample size is calculated from Slovin's formula with 10% margin of error. In collecting primary data, researchers conducted an interview with Department of Transportation (DISHUB) and the people of Bogor City. The secondary data is from government's documents and previous literatures. To analyze the effectiveness of policy we used descriptive analysis and analyze the respondents' answers.

## **3. DISCUSSION**

In overcoming congestion in Bogor City, the local government has issued several policies. It's just that in its implementation it is still not optimal so that the policy still cannot overcome congestion in Bogor City. Then, this congestion caused several impacts, namely the emergence of congestion points in various places, air pollution and social impacts

The Impact Of High Congestion In Bogor City:

### **1) The occurrence of congestions at various points**

The large number of city transportation on some routes that are not in accordance with the quota of the government has an impact on the accumulation of the number of vehicles on each road. Basically, organizers of urban transport services maximize their income through the most crowded routes of users. According to data from the Bogor City Statistic Center in 2010, the routes of Baranangsiang and Bubulak were 322 units but the situation was reversed, which was 382 units. The busy route is in a strategic place and center of the city movement such as Bogor Station, as well as shopping centers such as malls and markets. Based on the observations that the author observed, the following is a point of congestion that occurs in the city of Bogor along with the things that cause congestion at each point.

**Table 2.** Congestion points in Bogor city

No	Street name in Bogor City	factors traffic congestion
	Jalan Pajajaran	The point of traffic jams in the Square area of botany to the north of the lane is caused by tourism activities which cause illegal parking due to the lack of parking facilities and the large number of city attractions that often stop or stop suddenly to get passengers.
	Jalan raya Darmaga	Many pedestrians and city transportation lack discipline on roads with a narrow volum
	Jalan Kapten muslihat	There is a lot of mobility in front of the station and lack of discipline in city transportation because it stops at the side of the road to look for passengers
	Jalan Sholeh iskandar	Jalan which is the center of shops and businesses has a negative impact on traffic flow

*Source: (GPS NAVIGATION APPS) Iskandar Babakan Ps. Otista map, Jl. Bogor Tengah District, Bogor City, West Java*

- 2) Traffic on the highway becomes irregular: Irregular traffic is usually caused by city transport drivers who have a lack of awareness of the applied local regulations. City transportation drivers are also often apathetic about existing regulations because they have to pursue "deposits" that are often competitive with other drivers to get consumers so they are less concerned about the rules and safety of their passengers. Violations that are often carried out by city transport drivers are not obeying road signs, stopping or parking in an undue place to reduce or transport passengers, pull over too long, and transport more than capacity.
- 3) City transportation users who feel uncomfortable because public transportation services are still not optimal: The growth of population demands more transportation services. The increasing number of population in Bogor including South, East, North, West and Central Bogor also Sareal Land each year is at a rate of 1.53% from 2016. This data was obtained BadanPusatStatistik (BPS). From the high rate of population growth and with a population of more than 1 million people Bogor is expected to provide an effective transportation but in fact services such as public transportations itself become the main cause of congestion. Following tables of public transportation that are still operating
- 4) Negative Impacts on Social Affairs

City transportation can also be a cause as a negative social impact. Because the habits experienced by urban transport in attracting passengers irregularly cause people to do so too because it becomes a habit and is chased by time.

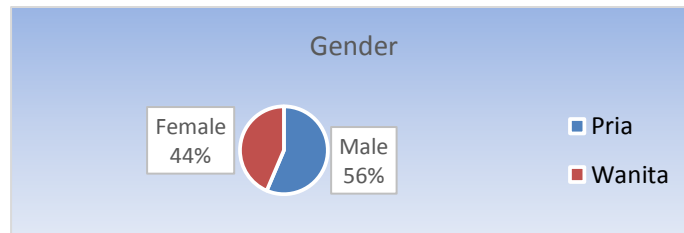
#### Factor of Congestion In Bogor

Of the problems that exist, researchers have collected several congestion factors based on previous research and interviews. The explanation of the factors below is intended to prove that there are linkages in the form of the same factors in congestion in Bogor City. Following are the factors that cause congestion based on previous observations and research:

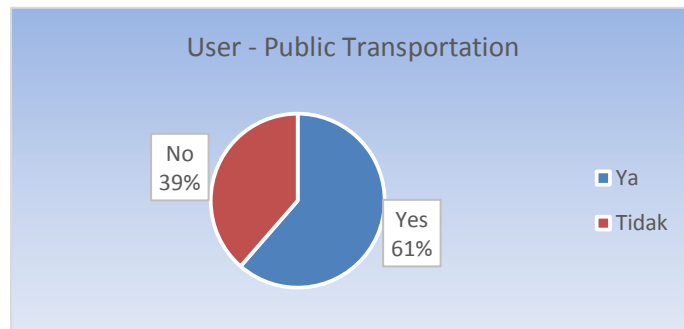
**Tabel 5.** Congestion factors based on previous research and interviews

No	Author	Detail	Factors
1.	Dishub, 2019	Shift system policies that were effective at first, but did not last long	lack of awareness of city transport drivers in complying with the policies of the Bogor city government
2.	Sapardi, 2019	Traffic Congestion	<ul style="list-style-type: none"> <li>- one of the tourist destinations</li> <li>- Lots of bottle neck or narrowing of the road</li> <li>- the volume of vehicles that do not match the road section</li> <li>- vehicle parking on the road</li> </ul>
3.	(Kuntohadi, Pahala, & Sitanggang, 2019 [5])	Not only traffic jams, but Jakarta also faces many others Current transportation problems. They are unexpected services public transportation, contradictory tariffs, high traffic violations and accident	<ul style="list-style-type: none"> <li>- road users who are not disciplined</li> <li>- Parking space is inadequate</li> <li>- And irregular,</li> <li>- accessibility</li> <li>- people with disabilities to public transportation are still lacking</li> </ul>
4.	M. Absar Alam and Faisal Ahmed(2013) [6]	Traffic congestion does not occur only because of increasing levels of motorized vehicles. If that is the case, then cities with low-level motorized vehicles may not jam. for example, in the case of Dhaka in Bangladesh and Varanasi in India, the traffic flow is slow and causing heavy congestion. In particular, Varanasi only has 7% of the total motorized vehicles in Delhi	<ul style="list-style-type: none"> <li>- Congestion also occurs due to management errors between demand and supply of transportation services. (City Transportation)</li> <li>- increasing vehicle levels and constant road infrastructure levels.</li> <li>- low cost private transportation services,</li> <li>- psychological factors, lack of policy intervention.</li> </ul>
5.	Afrizal, 2019	Obstructed traffic flow in the autonomous area	<ul style="list-style-type: none"> <li>- the narrowing of the road</li> <li>- Many volumes of private vehicles</li> </ul>

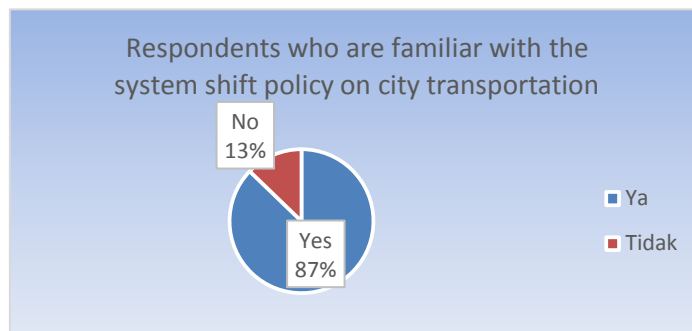
From the many factors that cause congestion above, researchers found out that there are factors mentioned several times from previous journals on congestion problems in Bogor City. With the occurrence of the phenomenon that the authors have described above, then the analysis go through the process of observing the respondents. This primary data through a qualitative approach with purposive sampling and produce 100 answered respondents obtained from distributing questionnaires to the people of Bogor in Wilaya around Bogor Agricultural University which have ages 16 to 44 years. The following are data obtained by the author.\



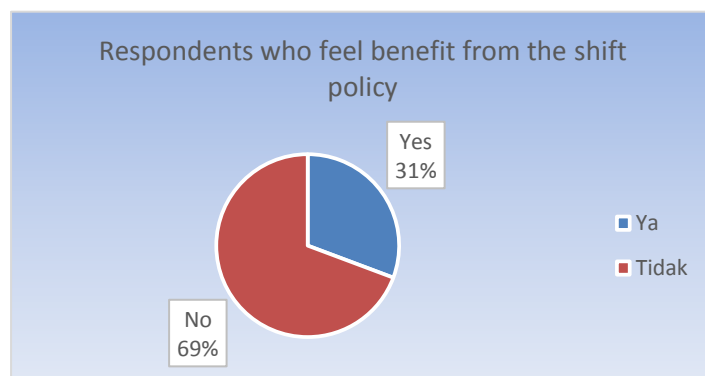
**Figure 1.** Gender



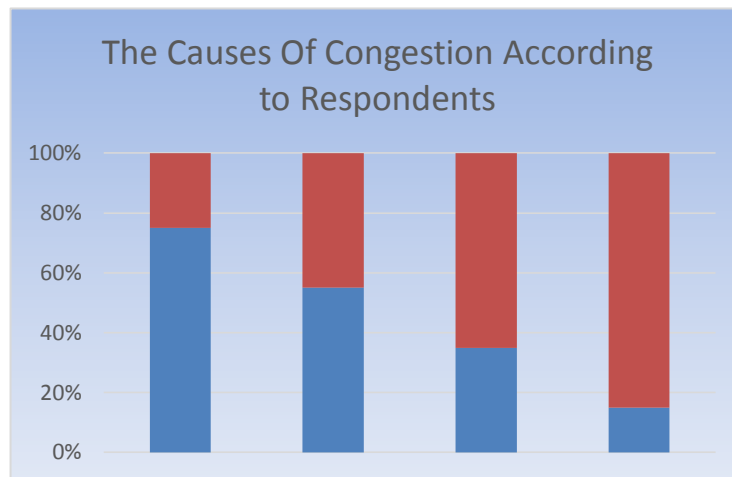
**Figure 2.** User City Transportation



**Figure 3.** Respondents who know the system shift



**Figure 4.** Respft p



**Figure 5.** The causes of Congestion according to respondent

From the data obtained by researchers through open questions through google forms, out of 100 respondents almost 70% of respondents answered a number of complaints that they experienced that they did not feel the benefits of government-issued policies on the shift system applied to city transportation. The complaint was in the form of lack of effort from the government to reinforce the laws that apply to the area so that it affected the city transport drivers who did not comply with the policy, lack of supervision by the local government on urban transport operations so that it affected congestion, more urban transport volumes to congestion because it is not comparable with the volume of vehicle lane facilities and also the government does not reinforce the law regarding the system shift policy. It can be stated that the shift system policy issued by the Bogor city government does not affect the mobility of Bogor city transportation because 70% of Bogor city residents do not feel the benefits experienced by the shift system policy which should be a significant change in decreasing city congestion. This is in line with the research put forward by Frances Agyapong, Thomas Kolawole Ojo who researched on managing traffic congestion in Accra Central Market, Ghana[8]

Solutions to overcome traffic congestion in the city of Bogor

Therefore, to overcome congestion in the city of Bogor. This research provides a solution to the problem of congestion in the city of Bogor, including from the government which must implement the problem of congestion that can be overcome, Realizing the implementation of effective transportation; Such as developing transportation facilities and infrastructure such as the construction of stops for city transportation so that every city transportation stops at the roadside. after that increasing the professionalism of transportation human resources, improving service and comfort of public transport so that the people of Bogor are more interested in transportation than private vehicles, Development of alternative mass transportation modes such as Sky Way and / or monorail or inner city tram, efficiently; Reduction of exhaust emissions through the use of alternative fuels Increased staff professionals in the LLAJ field.

#### 4. CONCLUSION

From the research it can be concluded that, the cause of traffic congestion in Bogor City is that the attitude of the government is still lacking in law related to shift system policy, lack of awareness of public transportation drivers to comply with shift system policies and also the narrowing of roads in Bogor. the road area is autonomous, causing traffic jams. Therefore, from the government side it is recommended to implement the shift system policy optimally so that the effects of traffic congestion do not affect road users such as thick air pollution, traffic

accidents and decreased productivity of road users. If a shift system policy is deemed no longer expected, the implementation of the shift system policy should be revoked, so that it does not create a bad situation such as traffic congestion.

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