

# The Implementation of Regional Policy of One-Way Urban Road Networks in Addressing Traffic Congestion

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**Abstract**—The main concern of this study is the Implementation of the Regional Policy concerning Traffic Management and Engineering in addressing Congestion in three main streets in Cirebon City. The problems identified are includes: 1) how is the implementation of the regional policy 2) factors influencing the implementation of the policy, 3) the hindrance of the implementation of the policy, and 4) efforts to overcome handicaps during the implementation of the policy. A descriptive research with observation and interview are chosen as technique for data collection. Based on the research, the findings result that the implementation of one-way system policy on three main streets in Cirebon is less effective. It is caused by the rapid growth of population followed by the rapid vehicles ownership. In addition, people are considered less concern with the one-way road networks. Furthermore, another extent in the Implementation of the Regional Policy No. 7 of 2017 concerning Traffic Management and Engineering in Addressing Congestion on the sites reveals that community awareness in succeeding the regulation is essential as well as various approaches supporting the implementation of the policy appear in this study.

**Keywords**—implementation; public policies; traffic management and engineering; congestion

## I. INTRODUCTION

Technology developments are unstoppably grown. One of them is the advancement of transportation particularly in cities. This also causes some unexpected situations on the street which are apparently faced by the people known as traffic congestion. Congestion is defined as “the state of being overcrowded, especially with traffic or people [1]. Meanwhile, Cambridge Systematics defines congestion as an excess of vehicles on a portion of roadway at a particular time resulting in speeds that are slower than normal or free flow speed [2]. A further reason for traffic congestion is that older, established cities were laid out physically in pre-automotive eras; hence they lack streets and roads suitable for handling automobiles, trucks, and buses. Enlarging the capacity of streets in old city for automotive traffic is widely opposed by local residents, since their dwellings would be torn down by widening streets. Therefore, the growth of road capacity does not catch up with growth of vehicles and this mismatch could cause lots of vehicles blocked on narrow roads [3]. Traffic congestion

happened in Hangzhou City, is partly caused by the growing number of three kinds of population which encourages further growing of transportation in different ways [4].

When compared with the growth of population in Cirebon City, growth of vehicles has more influence on traffic system directly. It has been growing rapidly in the past ten years, since the growing number of population and more related to people’s growing incomes as well as the number of vehicles, private cars, and motorcycles. More advantages of using motorcycle encourage more people to use it.

In contrast, this also carries an unsolved problem with regard the traffic congestion in the city especially around the three main streets in Cirebon City namely Pasuketan, Pekirangan and Pekalipan. The environment is considered as trade center and city center with big number of population yet less-facilities. Inadequate parking area, big number of vehicles; private cars, public transportations or motorcycles have caused the main problem that reluctantly being concerned. As a result, traffic congestion in areas will get worse to solve the problems.

Some policies and planning issued by the local government have been implemented in some big cities in different counties. General Office of the State Council in Guangzhou published ‘Suggestions about the Priority of the Development of Urban Public Transportation [5]. As a result, whenever mismatch between supply and demands increases, the city administrators have tried to balance it by creating infrastructures or policy changes [6].

Local government in the city issues some policies regarding traffic congestion management. One of which is the policy of Traffic Management and Engineering using Temporary Traffic Control signals (TTC) [7]. TTC signals are typically used for certain conditions such as temporary one-way operations. One-Way road networks have a number of characteristics that can be used in high density zones with one lane open and involving intersections [7]. The present paper aims to highlight the implementation of One Way road Networks on the traffic congestion in the three main streets in Cirebon City, Indonesia.

## II. RESEARCH METHODS

In this paper, the One-Way road Network of the three main streets in Cirebon City. This study applied descriptive qualitative method with the aim at analyzing and describing the implementation of Regional Policy on Traffic Management and Engineering using One-Way road Networks in the areas of three main streets in the city of Cirebon; Pasuketan, Pekiringan and Pekalipan as considered the busiest trade and city center. Interview, observation and survey were decided to use for data collection technique. Interview sessions were given to an official as the main informant, some functionaries as well as employees at Department of Communication in Cirebon and organization in the society as the supporting informant.

Some phenomena regarding One-Way road network in mentioned areas were observed. The observation focused on the traffic flow crossing the observation site and people activities. The survey was administered within one week in the form of mechanical survey in terms of finding out the number of vehicles parked on sites.

## III. RESULTS AND DISCUSSION

The Implementation of Local Government Policy of Cirebon City regarding Management and Traffic Controlling Policy is one of the policy which made by Government to optimize roads and traffics in Kota Cirebon and in order to apply safe, orderly and smooth traffic and transportation. So that it can provide legal certainty for signs, markers, Traffic Signing Equipment and other traffic and transportation facilities that are orders, prohibitions, warnings or instructions that are applied at urban road. Management and Traffic Controlling Policy activities include planning, management, controlling, empowerment and supervision. The government issued Management and Traffic Controlling Policy in Kota Cirebon because Cirebon is located in a region which many vehicles passing by. Nowadays, people tend to increase their travel mobility to many places through Cirebon. Therefore, the local Department of Transportation has a main duty on the data that being collected by Traffic Department showed that there are number of motorcycles and Peci cabs breaking the policy which resulting traffic jam. Human resources owned by the traffic sector already have quantity and quality. Then source of the budget, if it is only for one road. For example, only Pekiringan road, the budget is considered sufficient, but for whole road in Cirebon City, planning is needed and then budgeted. And for facilities and infrastructure if an activity that is incidental, the traffic agency is ready with its portable signs. The coordination of traffic related to traffic jam in Cirebon city has been very effective in presence of a Communication Forum for Traffic and Road Transportation that has a legal basis and an organized meeting schedule. Then about the delivery and clarity of information to target, that is the community may partially get clarity of information related to management policies and traffic engineering. However, it depends again to the community itself, whether they want to apply the information or only violate it is only a little back to the community. The characteristics and performance of traffic sector were good because each member already had their

respective competencies according to their fields. Then about supervision, each head section and member always reports to supervisor at the end of activity. Direct supervision is also carried out by supervisors so that policies can be controlled properly.

## IV. CONCLUSION

Based on the results of study, the authors get the conclusion concerning the implementation of the Regional Regulation Policy related with the implementation of One-Way road network Management and Engineering Street in Cirebon City. It's not a policy product of Regional Regulation which is currently underway but is a policy of previous regulation. The policy implementation of regulation at that time had provided optimal results in reducing the level of traffic jam on three main streets in the city namely Pasuketan, Pekiringan and Pekalipan, but over time the city of Cirebon became a more crowded city than before due to rapid population growth, resulting in the implementation of a one-way system on Pekiringan Street not optimal.

The purpose of the implementation carried out by government was right on target but in this case it returned to community itself whether they wanted to follow the regulation or not. From the results of traffic field survey data, it is still found that disobedient people are breaking into one-way roads. Human resources owned by the traffic sector already have quantity and quality. However, for budget sources, the government should pay more attention to budget issues so that existing programs run more optimally. To source facilities and infrastructure for activities that are incidental in field of traffic, they are also ready with their portable signs. The coordination of traffic related traffic jam issues in Cirebon city has been very effective with the existence of a Traffic and Transportation Communication Forum that has legal basis and organized meeting schedule. Then about the delivery and clarity of information to the target, that is, the community may partially get clarity of information related to management policies and traffic engineering. The characteristics and performance of traffic sector are good because each member already has their respective competencies according to their fields. Then supervision, each head section and member always reports to supervisor at the end of activity. Direct supervision was also carried out by supervisors so policies can be controlled properly. The impact of the social, economic and political conditions above is first, the economic conditions of traffic jam can be converted in the form of money, the more traffic jammed occur on roads, it obstruct the economic agents. Then the social conditions, every policy that is applied must always have socialization so target can find out what happened after the policy was implemented.

Finally, politically, implementing policies requires the right time, because the political situation sometimes indirectly affects policy. The policy implementers or employees in terms of discipline and behavior have followed the rules and upheld the norms that apply as civil servants. Then the motivation of employees, head of the traffic sector has given direction related to motivation for its members in enforcing safe, orderly and smooth traffic in Cirebon City. The obstacles of traffic management and engineering deals with the inhabitants who

ignored these regulations, budget funds, double parking on roads and high vehicle growth rate which cause traffic jam.

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