The Efforts Of Handling Transportation Problems
In Dki Jakarta Through Sustainable Transportation Policy

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Abstract. Transportation problems in Jakarta are very complex. There are three common problems occurring, such as uncontrolled numbers of private vehicles, poor and unreliable condition of public transportsations, and indisciplined behavior of road users. This study discusses the efforts to handle transportation problems in Jakarta using the concept of sustainable transportation. Using qualitative research method, the results of the study showed that there are some efforts that had to been done in short-term, medium-term and long-term in accordance with the concept of sustainable transportation. In short-term, the efforts are the implementation of direct services and the organizing of public transport. In medium-term, the efforts are the construction of the MRT and LRT, and also the arrangement of pedestrian lanes. Meanwhile, in long term, the government must integrate the spatial policies with transport policy and establish special authority on Jabodetabek transportation. The results also suggest that there are urgencies to have a shift in the paradigm and mindset of both central and local governments, from transportation policies that favor for private vehicles into policies that favor for public transport, as well as the courage and commitment of the provincial government of DKI Jakarta to implement the efforts gradually and sustainably.

Keywords: jakarta, sustainable transportation, transportation policy

INTRODUCTION

Transportation is vital in the process of developing a nation. At this moment, transportation system has become one of the most vital foundations of economy, particularly since the public today is pressed to have a high mobility in everyday’s life. Tamin (2000) stated that transportation infrastructures play two main roles, namely as a helping tool in directing development in urban area, and as infrastructures for the mobility of people and/or goods caused by activities in urban area.

Transportation problems in Indonesia, in Jakarta in particular, are very complex. It is unfortunate since transportation is one of the foundations of economy. The analysis of the Presidential Working Unit for Supervision and Management of Development (UKP4) shows that the losses caused by traffic jam are amounted to IDR 12.8 trillion per year. These losses were caused among others by the operative cost of vehicles and stresses felt by the public, having trapped in traffic jam on daily basis. The average speed rate of vehicles in Jakarta is only at 8.3 Km per hour, far below minimum service standard of 20 Km per hour, whereas in Depok, Tangerang, and Bekasi areas, the average speed rate is still at 30.5 Km per hour (www.okezone.com). Meanwhile, DKI Jakarta Transportation Office noted that the cost of losses caused by traffic jam was amounted to IDR 45.2 trillion per year, comprised of fuel cost, vehicles operational cost, time value, economic value and air pollution (Office of Transportation in Numbers, 2011).

Handling transportation problems in Jakarta, traffic jam in particular, the government of DKI Jakarta Province in the era of Governor Sutiyoso leadership had designed a transportation pattern expected to be able to solve transportation problems in Jakarta. This grand design of Jakarta transportation was known as Macro Transportation...
The development of urban public transportation at the moment is entering a new era by the emergence of Sustainability Transportation concept. The Centre for Sustainable Transportation, at the University of Edinburg, have proposed that the sustainability transportation policy, which they defined in a statute, be published and then implemented. The new concept involves the government, local government, and private sector, as well as the public. The new concept is also known as ‘sustainable transportation’.

In sustainable transportation concept, there are three indicators: economic, social, and environmental indicators. From economic aspect, transportation system must support economy vitality while building the infrastructures for the attitude of social ability and willingness to pay. Social aspect is related to adjusting social needs with the efforts of making transportation easier, access, safe, and comfortable; while environmental aspect required a suitable solution that strengthens the development of natural environment and natural environment, reduces policy, reduces emission, and uses minimum material resource.

One important thing in sustainable transportation is the need of integrating policies from some areas, in particular transportation, spatial plan, and environment policies, as well as the implementation of macro transport. According to Winarno (2002) as follows: “[s] sustainability requires that policy-making for urban travel be viewed in holistic sense; that planning for transport, land-use, and the environment no longer be undertaken in isolation one from the other … without adequate policy coordination, the effectiveness of the whole package of measures and their objectives is compromised.”

Thus, in the sustainable transportation concept, it is expected that there are integration and harmonization, not only among all areas of the policy, but also economic, social, and environmental needs through better accessibility and quality, implementation of multimodal transportation, and interconnectivity between existing transportation patterns. Moreover, it will take an integration of policies between transportation, land use and environment policies in order to build a lively city.

### Research Methods

The research approach employed in this study is qualitative approach. By employing this approach, the researchers intend to get information that are in depth, thorough, detailed, and comprehensive manner, thus not limited by measuring instrument. Moreover, qualitative method is employed so that researcher acquired a thorough understanding and highly probable gained new and important information that could not be gathered by using quantitative approach. Meanwhile, the data collected were analyzed through literature study, observation, and in-depth interviews. The data analysis is conducted through qualitative data analysis. By conducting qualitative analysis, this study can be more focus on showing the meaning, giving description, and placing data in each context.

### Result and Discussion

Transportation system problems in Jakarta are indeed very dynamic. Changes in existing transportation system actually contribute to the complexity of transportation problems in Jakarta. The main problem is traffic jam. The rate of traffic jam in Jakarta is increasing over times. The lanes that a decade ago was jam-free nowadays are packed with traffic jam. This traffic jam problem were caused by many factors, such as uncontrolled number and usage of private vehicles, poor and uncomfortable public transportation modes, and indisciplined behavior of road users.

The uncontrollable number and usage of private vehicles had been begun to become a factor of increasing rate of traffic jam in Jakarta. Moreover, credit application of motor vehicles became easier with lower down payment and interest which contributed to the increasing rate of traffic jam in Jakarta. In sustainable transportation concept, it is expected that there are integration and harmonization, not only among all areas of the policy, but also economic, social, and environmental needs through better accessibility and quality, implementation of multimodal transportation, and interconnectivity between existing transportation patterns. Moreover, it will take an integration of policies between transportation, land use and environment policies in order to build a lively city.

The policies to control private vehicles number, such as the confinement of vehicle purchasing, cannot be applied at all in Indonesia since it has not been implemented due to lack of strong legal regulations in Indonesia. The uncontrollable number and usage of private vehicles will harm automotive industries which will lose their market share in Indonesia by the stipulation of such policy. The government themselves, local government in particular, will face a decrease in tax revenue, particularly from motor vehicle tax. Meanwhile, from public view, this policy can be regarded as a restraint in individual right to own goods.

The authority to stipulate a policy limiting motor vehicle ownership up to government. Unfortunately, to this day, the central government does not take a firm stance on this matter, such as by regulating higher down payment for motorcycle purchasing. Local government itself, Jakarta Province government in particular, has no authority to stipulate such policy. The only thing that can be done is stipulating progressive tax for motor vehicles and apply it only to second and more vehicle ownerships. Therefore, in terms of private vehicle, the only way to control it is by continuing usage, not by prohibiting it.

Many people prefer taking private vehicle since public transportation at present are still in very poor condition. Buses, mini buses, tricycle and other modes of public transportation in Jakarta are quantitatively and qualitatively unreliable. In quantity, public transportations in Jakarta at the moment are well below the number of private vehicles in Jakarta, while in quality both from comfort, safety, and punctuality aspects, the public transportations in Jakarta are known for their unreliability.
Of all traffic law violations, motorcyle riders are the highest traffic law offenders. The most often found acts of violation are the taking over of other vehicles from vagaries of the flow, ignoring traffic lights, and using pedestrian area as drive lane. Besides motorcycle, small public transportations such as minibuses also contribute to traffic disorder. Drivers of these transportations often have their own way when driving and stopping at lane at the intersections. Other disturbing behavior of these public transportsations is their habit of "neglecting" or waiting for passengers at random places.

To solve these matters, the government of DKI Jakarta has issued Macro Transportation Pattern policy. This policy contains three main strategies, namely public transportation development strategy, traffic limitation strategy, and parking strategy. Public transportation development strategy regulates the development of bus rapid transit (BRT) also known as TransJakarta, monorail (MRT) and light rapid transit (LRT) also known as monorail, waterfront, and train. However, in its implementation, this public transportation development strategy has not yet been implemented. In the last phase of all 3 transportation modes developed in Jakarta, namely busway, MRT/LRT, and waterfront, only busway can be materialized. However, even though the government of DKI Jakarta province was unable to do anything. Today, there are new investors on monorail project. However, the continuity of the project is still constrained by administrative and documentary completeness of evaluation processes. The waterway as an alternative transportation facility cannot be implemented well even if in 2007, this transportation mode had been utilizing Ciliwung river stream in West Flood Canal going through Halimun-Karet route. However, this project only lasted for a while until it stopped in 2008. The factors for this waterway failure was the unstable water debit of West Flood Canal, too many wastes on the stream disrupting propeller and machines of operating boats, and low position of bridges along the way preventing the boats from passing. These many problems in infrastructure and ERP policy implementation are often experienced especially in flooding. In the assessment that waterway is infearable in rivers and should be transferred to serve coastline routes along Pondok Kelapa-Merak-Abang (4.5 km), and Pasar Minggu-Casablanca (9.5 km). However, the waterway route in Ciliwung River is actually still probable for an implementation, provided that the river infrastructures are reconditioned, the stream is normalized, and the wastes are cleared.

The second strategy in Macro Transportation Pattern policy is traffic limitation, the configuration of the machine, ERP policy, electronic road pricing (ERP), and parking, is not safe from problems. The 3 in 1 policy stipulated in the Governor Decree Number 4104 Year 2003 on the arrangement of traffic control area and the obligation to carry at least 3 passengers per one vehicle on specific streets in DKI Jakarta province is a policy limiting private vehicle passengers of minimum 3 persons from 7-9 a.m. and 4:30-7 p.m. However, although this policy has been implemented since 2005 up to now, it still seems unsuccessful to overcome traffic jam in those streets. In fact, this policy evokes another problem, namely the development of information system. Those 3 in 1 jockett policy are always present in every 3 in 1 imposed street and their number increased every year. Some of Jakarta citizens even have this 3 in 1 jockett as profession since they find it pay better than being a scavanger or other informal sector jobs.

Other policy in traffic limitation is electronic road price (ERP) which is a congestion charge imposed on private vehicle drivers in specific roads at specific time so that a balance of demand (traffic) and supply (road availability) is established. ERP is an important part of the previous and the current transportation development strategy regulates the infrastructure, and network capacity-increase strategy. Public transportation policy contains three main strategies, namely public transportation, private vehicle, and parking. However, the implementation of even-odd policy on who should sign the working contract: the central government or DKI Jakarta government of DKI Jakarta province was unable to do anything. Today, there are new investors on monorail project. As the current process is over, the constructing of MRT infrastructure is still probable for an implementation, provided that the river infrastructures are reconditioned, the stream is normalized, and the wastes are cleared. However, although the construction plan of these six toll road segments has not been conducted.

The construction plan of these six toll road segments is perceived as not the appropriate solution to transportation problems in Jakarta; it is more expensive than the amount of money. The construction of IDR 2.02 zillion of the whole area-size, and to increase the capacity of road network, the Government of Jakarta Province is planning to construct six segments of toll road and two segments of non-toll road. The 6 toll road segments are Kampung Melayu-Kemayoran (9.6 km), Semanan-Sunter through Rawabuaya-Duri Pulo (22.8 km), Kampung Melayu-Duripulo through Tomang (11.4 km), Suntel-Palembang through Kelapa Gading (10.8 km), Ujung-Tanah Abang (8.3 km), and Pasar Minggu-Casablanca (9.5 km). However, although the construction plan of these six toll road segments has been installed into the spatial (RTWR) planning of Jakarta that is stipulated in Regional Decree Number 1 Year 2013, up to now the construction process of these six toll road segments has not been conducted.

One of the factors delaying the construction of these six toll road segments is public refusal. The construction of these six toll road segments is perceived as not the appropriate solution to transportation problems in Jakarta; it is more expensive than the amount of money. The construction of IDR 2.02 zillion of the whole area-size, and to increase the capacity of road network, the Government of Jakarta Province is planning to construct six segments of toll road and two segments of non-toll road. The 6 toll road segments are Kampung Melayu-Kemayoran (9.6 km), Semanan-Sunter through Rawabuaya-Duri Pulo (22.8 km), Kampung Melayu-Duripulo through Tomang (11.4 km), Suntel-Palembang through Kelapa Gading (10.8 km), Ujung-Tanah Abang (8.3 km), and Pasar Minggu-Casablanca (9.5 km). However, although the construction plan of these six toll road segments has been installed into the spatial (RTWR) planning of Jakarta that is stipulated in Regional Decree Number 1 Year 2013, up to now the construction process of these six toll road segments has not been conducted.

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Transport oriented. Government still sides more on private vehicle in implementing transportation policy than on public transport, in 1980s and 1990s in particular. This is shown from the unlimited usage of private vehicle in Jakarta. The fuel subsidy and the case in motor vehicle credit proposal also indicate how existing policy is not sided with public transportation. The government of DKI Jakarta province is also regarded as not having the courage and willingness to cast to public transportation policy, so that PTM policy cannot be implemented well.

Apart from courage and willingness, the overlapping regulations is also an aiming indicator of transportation policy. Improvement to now, regulations on transportation are separated by transportation modes, for example Law Number 22 Year 2009 on Road Transportation and Law Number 23 Year 2007 on the Railway. Therefore, up to now on national scale, there is not a single regulation on all modes of land transportation, although regulations on transportation are very important, particularly to regulate policy integrated in adjoining areas. For example, transportation in Jabodetabek region should be under one regulation so that transportation problems can be solved wholly.

All transportation problems happened in Jakarta indicated that Transportation Pattern policy as the foundation of transportation policies in Jakarta has not been able to overcome existing transportation problems. Therefore, there is a need for reasserting implemented transportation policy using sustainable transportation policy concept. Sustainable transportation concept basically emphasizes on the integration and harmonization of transportation policy, as well as economic, social, and environmental interests, through better accessibility and quality, implementation of multimode transportation, and interconnectivity of existing transportation pattern. Moreover, this policy also enforces policy integration between transportation, spatial plan, and environment policies for Jakarta city.

To overcome transportation problems by employing sustainable transportation policy, the government of DKI Jakarta province should take effect in three terms: short term, medium terms, and long terms. In short terms, government can first implement direct services system in Transjakarta Busway. This system contains three straight lines and ticketing integrations. Physical integration lets other public transportations use Transjakarta lanes. Systemic integration puts operators of other mode of transportation, such as Kopaja, Masayari Blahi, and Metromini into Transjakarta management system, which is vital so that there is similarity in management to ease the implementation of direct services. Ticketing integration has similar fare between Transjakarta and integrated inner city buses. As of now, the government of DKI Jakarta province has conducted direct services in physical integration by allowing two regular inner city buses operated by Kopaja to enter busway course, namely Kopaja AC P-20 serving Lebak Bulus-Senen route, and Kopaja AC 602 serving Ragunan-Monas route, whose routes are integrated to Transjakarta corridor 6. Next attempt in revitalizing short-term transportation policy is by conducting arrangement and revitalizing of public transportations, particularly to inner city buses in Jakarta. This arrangement of inner city buses was conducted immediately, related to pull policy in public transportation. Public transportation revitalization by the Communication Office of DKI Jakarta will be conducted in two stages: supplementing investment in renewing inner city buses, conducted by bus operators themselves and donating 1000 buses to inner city bus operators for direct services and public transportation arrangement, then the next step to do is integrating various public transportation modes serving inner city routes or intercity routes. For example, integration of railways serving regions adjoining Jakarta with busway placed in one integrated environment, and integration between busway and feeder buses such as microbuses that serve the routes not connected to busway.

The fourth attempt is related to the implementation of limiting private vehicle usage system that can be used in Transjakarta ERD. ERD policy implementation is complete legal base is expected to be implemented soon in Jakarta. One thing that needs to be completed in ERD implementation is vehicle identification and registration system. Other short terms effort is the arrangement of on-street and off-street parking as a means to confine private vehicle and arranging road environment. One arrangement that can be done in parking is by turning on-street parking into parking meter system. By this system, vehicles parking at the side of the road are obliged to fill parking meter according to the parking time. The last attempt is related to the provision of environmentally friendly fuel. In this matter, Petroleum Gas is one of the alternatives that can be used on Trans Jakarta but not by other public transportations. However, the provision of Petroleum Gas for public transportations policy is restrained by limited supply since at the moment Petroleum Gas is more of export commodity due to its higher price. Therefore, the government of DKI Jakarta policy needs to take special step in providing Petroleum Gas for public transportations. In this matter, there is a need for negotiation between the government of DKI Jakarta and the Department of Energy and Mineral Resources and Pertamina to increase Petroleum Gas supply in Jakarta more than other regions.

Moreover, revitalization effort can be conducted by starting the construction of MRT/LRT to be used as a superior transportation mode in Jakarta. The road network capacity should also be consideration in detailed Transport and Land Use Planning (RDTR) which is still in its formulation stage. The support from central government is needed, related to policy and regulation at national level, particularly related to interregional cooperation and environmental friendly fuel provision. Political support from the Council is also needed, particularly related to regulation and budget at regional level required to implement the transportation policy.

CONCLUSION
Transportation problems in Jakarta are indeed very complex, like intertwined thread that is hard to untie. Transportation problems in Jakarta are the ever increasing and uncontrollable numbers of private vehicles, unreliable public transportation, and indiscriminate behavior of road users. The macro transportation pattern policy, expected to overcome transportation problems, has its own problems in its implementation. This complexity is augmented with the non-existence of policy that really supports public transportation and the reluctance and discouragement of DKI Jakarta provincial government to implement PTM. To overcome these problems, there must be efforts taken to revitalize PTM policy conducted in short term, medium term, and long term, so that PTM policy in the future can be a sustainable transportation policy.

Suggestion offered by this research is that the government of DKI Jakarta province should be able to change the paradigm and mindset underlying the transportation policy, from transportation policy oriented on private vehicle to transportation policy oriented on public transportation. Thus the transportation policy to be given first priority is the transportation policy supporting the improvement of public transportation to spatial planning, not against each other. Moreover, in the future, there needs to be a special authority for Jabodetabek transportation since transportation problems in Jakartan cannot be detached from the transportation plans in regions surrounding Jakarta. The last is the implementation of Jabodetabek transportation master plan, comprised of two modes, bus and train. This Grand design of transportation can help integrate the interregional transportation policies in Jabodetabek, so that existing transportation policies will be holistic and integrated.

REFERENCES