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## ANALYSIS OF MITIGATION PERFORMANCE BUDGET IN TRANSPORTATION SECTOR IN YOGYAKARTA PROVINCE

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Received: August 31, 2017; Revised: September 22<sup>nd</sup>, 2017;  
Published: October 1<sup>st</sup>, 2017

### Abstract

Yogyakarta province is one of the regions with growing concerns towards increasing carbon emission from growing private transportation usage. In response, the provincial government enacted Local Mitigation Plan by the Governor Regulation Number 51 Year 2012, in accordance with the Presidential Decree No. 61 Year 2011 on National Mitigation Plan for Reducing Glass House Gas (GHG) Emission. The plan places energy and transport sector as top priority programs that should be controlled and regulated by the local government. This paper examines the implementation of the plan by looking at the derivation of the local mitigation planning into government budgeting. It employs project sustainability analysis to elaborate the presence of factors affecting the application of the plan into government programs. The study reveals that in general, the government programs reported in the strategic and performance indicators on Government Performance Report (LAKIP) in transportation sector are in accordance with the local mitigation plan. Almost 80% from 25 core activities in the Local Mitigation Plan, can be described in each of the strategic objectives and performance indicators LAKIP. Only five core activities can not be translated into strategic objectives and performance indicators on LAKIP. Meanwhile, for supporting documents, approximately 52% has occurred compatibility between Local Mitigation Plan document with strategic goals and performance indicators in LAKIP. However, it is necessary for the government to make adjustments in a number of activities to improve the quality of planning as well as optimize the effectiveness of the budget.

### I. INTRODUCTION

Nowadays, governments in developing countries are dealing with great challenges in urban planning, due to urbanization and in turn, increasing density and traffic congestion. In a several urban areas there is an addition of more than a quarter million people every year that overwhelmed the entire effort being done to enhance the facility of the urban area. Meanwhile, the previously grown cities keep expanding without any clear limitation (Kustiwan, Pontoh, Ardjo, & Ananda, 2009). According to Devas and Rakodi, (1993), the huge challenges related to the city growth are closely related to migration activity, especially in an emerging country. Since migration has been the core factor of an urban growth, hence, it is worthwhile to consider one's reason of migrating, as well as the paradox between the urban and rural area.

As the impact of migration, Brunn and William, (2003), set out several core problems of the current modern cities. The core

problems that being explained are the giant city phenomenon (*excessive size*) even though its society and socio-economic capital is inadequate to support it, excessive population density (*overcrowding*), lack of facilities and infrastructure (*shortage of urban services*), slums and squatter settlements, traffic congestion, lack of social responsibility, unemployment and underemployment, racial and social issues, westernization vs modernization, environmental degradation, urban expansion and loss of agricultural land and also administrative organization.

Regarding the traffic congestion itself, on Haryanto, (2010) mentioned that it has been a very serious problem in a several big cities in Indonesia. The impact it caused to health and human welfare as well as the ecosystem has created humongous economic losses, hence it needs to be managed immediately. Polluters that emitted from its sources could react further in the air, producing secondary air pollutant that way more dangerous. Therefore, measurement of pollutants concentration in the air is important, to know the possible impacts. In Indonesia, economic cost caused by the air pollution counted in a health cost and productivity loss, which is predicted to reach at least US\$ 400 million per year, on 2015 (ADB, 2002) if there is no prevention and restraining steps.

According to Muller and Mendelsohn, (2007), the most of damages from air pollution are due to effects on human health, enhanced depreciation of man-made materials, lost recreation services, crop yield losses and reduced timber growth account for the remaining of damages. The problem of air pollution also linked with climate change issues. Because increases in the total stock of GHGs in the atmosphere cause climate change, the UNFCCC has expressed its ultimate objective as limiting and then stabilising the stock of atmospheric GHGs at a level that would prevent dangerous anthropogenic interference with the climate system (Ajani, Keith, Blakers, Mackey, & King, 2013).

Today, most countries regard a 2°C temperature increase above preindustrial level as the maximum tolerable limit for global warming. An exceedance probability of below 20% for this limit implies an emission budget of less than 250 GtC from 2000 to 2049, of which more than one third has already been emitted. Extrapolating current global CO<sub>2</sub> emission this budget will only last until 2024 (Rickels, Rehdanz, & Oschlies, 2010). In the short run period, green economy should be support achievement on the sustainable development through its indicator. Based on The Brundtland Commission Report of 1987, (*World Commission on Environment and Development-WECD*) brought the concept of sustainable development into politics. The follow up of the Brundtland Report, Agenda 21 introduced

the concept of sustainable development indicators (Greaker, Stoknes, Alfsen, & Ericson, 2013).

According to Alfsen and Saebo, 1993 on the Greaker, *et al*, (2013), a sustainable development indicator should provide *condensed* and *neutral* information about the state and development of an environmental or economic asset to the general public (Greaker, Stoknes, Alfsen, & Ericson, 2013). In the context of Indonesia, the Government has stated their commitment to handle the impact of climate change through Presidential Decree (Perpres) mechanism number 61st of 2011 regarding National Action Plan to reduce greenhouse gases emission (RAN-GRK) that also integrated into Regional Action Plan (RAD-GRK).

On the guideline to construct the RAD-GRK, the meaning of that document is a document that provide a protocol for Regional Government to do varieties of activity to reduce the emission, either in form of activity that directly reduce the greenhouse gasses emission in a certain period, or in form of indirect activity. The construction of RAD-GRK shall be aligned with all the document that become the basis of regional strategic plan documents such are Strategic Plan (Renstra) Regional Work Units (SKPD), Regional Mid-term Development Plan (RPJMD), Regional Government Work Plan (RKPD) and Regional Revenue and Expenditure Budget (APBD).

Indifference with the other region, the Special Region of Yogyakarta (DIY) is one of the regions that facing a problem related to traffic congestion and transportation. The increment of traffic congestion rate, according to ADB, 2002 data is transpired more because of high rate of urbanization, imbalance urban planning, economic growth that changes lifestyle that increasing energy consumption and motorization, high dependency of fuel, and lack of awareness of the society.

Based on the other document on Bappeda report, (2013) the core problem that urgently needs to be solved at DIY province is the sharp increase of population growth in a few areas. The citizen of Yogyakarta reaches around 1.3 million people, with the average growth rate of 2.2 percent in a yearly basis. The highest growth rate concentration in the urban area is at Sleman Regency especially at Depok district. On 2012, DIY province has issued a Governor Decree (Pergub) No 51st of 2012 regarding Regional Action Plan to Reduce Greenhouse Gases Emission (RAD-GRK). Considering its urgency, on the construction of RAD-GRK document, DIY Province places transportation along with energy sector as their core priority program that should be handled.

Align with it DIY Province Government also has allocating the budget for the document implementation. The coverage of mitigation action

on DIY Province RAD-GRK consists of several sectors, which are farming, forestry and peat land, energy and transportation and waste processing, and also industry sector. The RAD-GRK then elaborate the priority activities related with mitigation action of climate change of DIY Province, and SKPD that involved from each of these sectors, with Regional Planning Bureau (Bappeda) becomes coordinator on performing RAD-GRK (UNDP, 2015).

Based on source of emission, the Energy and Transportation Sector are the highest emission contributor, which is 94.7 percent from the total of GRK emission. The second highest contributors are waste processing sector accompanied by land based sector (Forestry and Peatlands). Emission from the farming (agriculture) contributed by the CH<sub>4</sub> Gasses Emission, while the industry sector emission is quite low.

In the other side, on 2013, DIY Province Government through Transportation, Communication and Informatics Agency (Dishubkominfo) has released the Report of Government Instance Accountability Performance (LAKIP) document, which compulsory to be applied in all Government Instances either in the central or regional based on President Instruction (Inpres) No 7 year 1999 regarding Government Instances Accountability Performance and the Regulation of Government Worker Empowerment and Bureaucratic Reform Ministry No 29 year 2010 regarding Guidance of Construction of Performance and Government Instances Accountability Reporting.

Table 1. Emission Reduction Target at DIY Province on 2020  
(Million ton CO<sub>2</sub> e-)

Mitigation Sector	Target	Percentage of Target (%)
Agriculture	0,13	1,0%
Land Based (Forestry and Peatland)	0,17	1,3%
Industry	0,02	0,2%
Energy and Transportation	12,06	94,7%
Waste Processing	0,36	2,8%
Total	12,74	100,0%
Percentage to RAN GRK	1,51%	-

Source: Processed from RAD-GRK Document of DIY Province of 2012

The occurrence problem is many regions with the construction of RAD-GRK document accompanied by the APBD funding often overlapped each other with the sectoral program and budgeting

in each SKPD, which has been documented in the LAKIP. However, well-coordinated planning documents could be very useful advice to produce APBD budgeting process that has optimal public service orientation. Thus, in this research a few problems that wanted to be investigated are:

- 1) How is the conformity of transportation sector program in RAD-GRK document with LAKIP at DIY Province in 2013?
- 2) What are the programs which have been synergized, overlapping, or even unsynergized?

To ease the analysis, in this research there are few problems constraint being used, which are: assumption of the LAKIP as Government Performance document; LAKIP document is limited for year of 2013, while the RAD-GRK from year of 2010 to 2013, and also the analysis limitation that will only scrutinized the conformity of the program and its performance indicator.

Based on Bappenas Report on 2011 RAD GRK is a document that provides a protocol for Regional Government to do varieties of activity to reduce the emission, either in form of activity that directly reduce the greenhouse gasses emission in a certain period, or in form of indirect activity. Regional Government could participate in the GRK emission reduction that suitable with sustainable development context in each region, for example through an activity which intended to preserve the environment that could socially impact their resident. This ideal condition can be reach by constructing regional strategic plan to reduce the GRK emission.

Based on this condition, therefore the construction of RAD-GRK become important for the Regional Government by formulating GRK emission reduction construction until 2020 or longer. In a context of government matter execution related with the GRK emission reduction, will be closely related with the construction of Regional Official Organization, especially on the formulation of Core Duty and Function of a Regional Agency and/or Regional Technical Institution, or related sub-organization. In a context of GRK emission reduction, thus PP 41/2007 regulated the amount and classification of the government matter as a basis of Regional Official Organization structure decision (Bappenas, 2011)

Besides providing data, the Regional Government party could participate into GRK emission calculation process. The Transportation Agency of Regency/City is constructing BAU baseline from Regency/City. In the making process of mitigation scenario of Transportation Agency in the Province and Regency/City level could provide data regarding RPJMD and Strategic Planning of Transportation Sector and several related regulation. In the mitigation proposal, the working

groups coordinated by the Transportation Agency in Province level forecasting the number of emission from each potential action chosen individually or as combination, by using ASI (Avoid-Shift-Improve) method (ICCSR, 2010) or from the IPCC.

Then, providing data of *cost effectiveness, political acceptable, technological feasibility, long term impact* and *sectoral appropriateness* analysis result, which is used to evaluate the appropriateness of chosen potential action. While on the Regency/ City level, the working groups coordinated by the Transportation Agency create mitigation action proposals, to be compiled by the working groups coordinated by the Transportation Agency in Province level, then the compiled proposals of mitigation action could be proposed (through Province Bappeda) to National Working Group to be processed (Bappenas, 2014)

## II. METHOD

In general, the type of research used in this investigation is qualitative explanatory research by comparing several document related to construction of RAD-GRK at DIY Province with Transportation sector LAKIP document of 2010-2013 as manifestation of SKPD performance. Several data used could be summarized on Table 2.

Table 2. Data Type

No	Document Name
1	Budget Execution Document (DPA) year 2010-2013 for related SKPD
2	Budget Working Plan (RKA) of related SKPD
3	Budget Realization Document of 2010-2013
4	Governor Regulation regarding RAD GRK
5	Governor Regulation regarding Elaboration of Accountability for Regional Budget Implementation
6	Evaluation Monitoring and Reporting (PEP) Report of Province and SKPD
7	LAKIP Report of Dishubkominfo 2013

Based on several document gathered, furthermore, an analysis to get more comprehensive representation of program construction mechanism on RAD-GRK of DIY Province document which prioritizing energy sector and transportation will be

done, by comparing the suitability of transportation sector performance reported on transportation sector LAKIP document of 2010-2013.

Hopefully by using this mapping, onward, the construction of documents could be done in a synergy therefore the APBD funding could be more optimal. However, analysis method used is based on literature comparative method. The data collection technic performed by using varieties of official sources related with the construction of RAD-GRK and LAKIP at DIY Province, which are Bappeda of DIY Province, Dishubkominfo, and BPS of DIY Province.

## III. RESULT AND DISCUSSION

### A. The Mitigation Activity Budget and Realization of Transportation Sector

The mitigation budget on RAD-GRK document of DIY Province is differentiated to core and supporting budget. Core Budget is a budget that actually directly related with varieties of program and activity on the planning at a Local Bureau. Meanwhile, supporting document is a budget that does not directly relate with varieties of program and activity on the planning at a Local Bureau (UNDP, 2015). In general based on RAD-GRK of DIY Province of the year of 2010 until 2013, mitigation action on energy and transportation sector could be seen in the Table 3.

Table 3. Mitigation Activity in Transportation Sector

No	Activity
1	Traffic Impact Analysis
2	Parking Management
3	BRT System Reformation
4	Rejuvenation of public transport
5	Car Free Day
6	Eco-Smart Driving
7	Car Free Day
8	Intelligent Transportation Ssystem -Adaptive Traffic Control System (ITS-ATCS) Implementation

Source: RAD-GRK of DIY Province Dokument of year 2012

Based on DIY Province's APBD analysis result from year 2010 until 2013, it could be seen that the total allocation of mitigation activity at DIY Province keep increasing significantly. If on year 2010 the mitigation allocation budget reached Rp166,7 Billion with realization amounted Rp142,7 Billion or 86%, in the 2013 the allocation has reached Rp226,2 Billion with realization amounted Rp202,3 Billion



or equivalent to 89%. This increment indicating the real commitment from the Province Government on handling the climate change issue in the region. The comparison between the total budget and its mitigation realization at DIY Province could be seen on Table 4.

**Table 4.** The Total Budget and Its Mitigation Realization at DIY Province (Rp Billion)

Remarks	2010	2011	2012	2013
Total Budget of Mitigation Activity	166,8	165,8	200,7	226,2
Total Realization of Mitigation Activity	142,8	141,1	173,3	202,4
% of Realization of Budget	86%	85%	86%	89%

*Sumber: APBD of DIY Province of 2010-2013*

From the total of mitigation budget on year of 2010 until 2013, the amounted allocation of core budget for mitigation purpose is also increasing. On year of 2010, allocation of core budget amounting Rp152,6 Billion with its realization of Rp129,5 Billion, increasing to Rp152,1 Billion on year of 2011 with its realization of Rp129,5 Billion, increasing to Rp 152,1 Billion with its realization of Rp129,5 Billion. The increasing trend continues on year of 2012 with the allocation reached Rp 187,5 billion and its realization of Rp 160,0 billion as well as year of 2013 allocation amounting Rp206,3 billion and its realization of Rp184,6 Billion.

The same pattern also happens on the allocation of supporting budget. On year of 2010, amount of supporting budget reaches Rp14,1 billion with its realization of Rp13,3 billion, a slight reduction on year of 2011 to be Rp13,8 billion with its realization of Rp11,6 billion. The reduction happens because of the stagnation on the allocation mitigation expenditure on DIY Province

Government, therefore the strategy of core budget priority is needed. A different thing happens on year of 2012 where supporting budget allocation having a reduction to e Rp13,2 billion with its realization of Rp12,3 Billion, but the other way around, in the same time the core budget is having an increase. For year of 2013, supporting budget allocation are revert to increase to be Rp20,0 billion with its realization of Rp17,7 billion along with the increase of core budget allocation.

From the total mitigation budget allocation amount, it can be breakdown into budget allocation based on sector, which could be seen on Table 5. Based on this table, energy and transportation sector as the priority sector of RAD-GRK document receives biggest core budget allocation each year. On year of 2010, the energy and transportation sector receives core budget allocation of Rp94,0 Billion, then having a slight pressure on year of 2011 that makes it down to be Rp90,6 Billion. Then the core allocation revert back significantly on year of 2012 to be Rp93,6 Billion and Rp104,2 Billion on year of 2013.

**Table 5.** Core Budget Based on Sectors (Billion Rupiah)

Sectors	2010	2011	2012	2013
Energy and Transportation	93.97	90.63	93.56	104.23
Waste Processing	10.62	8.67	19.07	8.78
Forestry (Land Base)	21.43	22.84	31.08	42.33
Agriculture	26.62	29.92	43.78	50.94
<b>Total</b>	<b>152.64</b>	<b>152.06</b>	<b>187.49</b>	<b>206.28</b>

*Source: APBD of DIY Province on year of 2010-2013*

However, if it seen from supporting budget structure based on sector, then biggest expenditure allocation is given to forestry and peat land sector on the period of 2010 until 2012. On year of 2010, supporting sector budget allocation of forestry and peat land reaches Rp6,8 Billion with the allocation

**Table 6.** Supporting Budget Allocation Based on Sector (Rp Billion)

Sectors	2010	2011	2012	2013
Energy and Transportation	3.99	4.57	5.61	9.63
Waste Processing	0.45	0.40	0.47	0.79
Forestry (Land Base)	6.84	8.35	5.83	7.50
Agriculture	2.83	0.46	1.28	2.04

*Source: APBD of DIY Province on year of 2010-2013*

of supporting budget of energy and transportation sector amounting Rp4 billion. Same thing happens on year of 2011 with supporting budget allocation of forestry and peat land reaches Rp8,3 Billion, meanwhile the allocation of supporting budget of energy and transportation sector amounting Rp4,5 billion.

The balanced allocation happens on year of 2012, when the forestry and peat land receives Rp5,8 Billion allocation, whilst the energy and transportation sector receives Rp5,6 Billion. Starting from year of 2013, the supporting budget allocation changes, when the energy and transportation sector reaches Rp9,6 Billion, while the forestry and peat land receives Rp7,5 Billion. In detail, the supporting allocation based on sector could be seen on Table 6.

Based on APBD document, mitigation expenditure budget at DIY Province on year of 2010-2013 has been focused on supporting the development of Trans Yogya UPTD and Transportation Agency SKPD and PUP ESDM Agency. On year of 2010, the biggest allocation is given to Transportation Agency amounting Rp46,6 Billion. Meanwhile on year of 2011, biggest budget allocation is done by Trans Yogya UPTD amounting Rp 43,2 billion, increasing to be Rp 44,4 Billion on year of 2012 and become Rp45,6 on year of 2013.

The same pattern also happens for supporting budget based on SKPD. On year of 2010, allocation for Transportation Agency reaches Rp1,7 Billion, a slightly smaller compare to ESDM Agency amounting Rp6,1 Billion. On year of 2011, this allocation slightly reduce to be Rp1,6 Billion, then increasing significantly on year of 2012 to be Rp 1,7 Billion as well as Rp 3,6 Billion on year of 2013.

Based on Table 7, could be seen the list of transportation sector core activity that recorded on RAD-GRK of DIY Province document, along with the budget allocation and its realization from year of 2012 until 2013. From 25 core activities existing on the Transportation Agency RAD-GRK document, the *buy the service* management of public transport receives biggest allocation each year, with fluctuate amount of the budget. If on year of 2010 the budget reaches Rp43,3 Billion with its realization amounting Rp39,8 Billion, on year of 2011 the allocation has significant increase o Rp42,3 Billion with its realization of Rp38,4 billion. A slight decrease on year of 2012 amounting Rp40,9 Billion, then the allocation increasing again to be Rp43,4 Billion on year of 2013 with its realization amounting Rp40,6 Billion.

Meanwhile based on Table 8, it could be analyzed the transportation sector supporting activity that recorded on RAD-GRK document. Different with the transportation sector's core activity structure, the list of supporting sector

relatively has more even distribution. Around seven activities are recorded to have optimal allocation for the period of 2010 until 2013. The seven activities that always have big allocation are : Rehabilitation projects / maintenance of weighing-bridge facilities and infrastructure, collection and analysis of a transport service database, road network performance evaluation, planning of urban transport service improvement, planning of AKDP public transport service improvement , Initiation of fast, right, cheap and easy service activities and the train traffic flow safety improvement.

## **B. Transportation Sector Performance Based on LAKIP Document**

Based on LAKIP of Dishubkominfo of DIY Province on year of 2013, there are two strategic targets related to transportation sector that derived to several performance indicators. The first strategic target is improving public service especially on transportation system management and villager access to transportation. This strategic target is used to support the inter-region connectivity, especially for the villager in an effort to improve the society welfare. This strategic target is also purposed to support the threat of city congestion countermeasure, which keep increasing, through capacity improvement of public transportation, rural management planning based on region, parking system management based on region, improvement of transportation safety aspect and also modes of transportation fitness test.

Meanwhile on the second strategic target, DIY Province Government willing to provide transportation sector facility and infrastructure that are effective, efficient, precise technology, low emission with high safety standard. It means, on this planning stage is where the issue to reduce the GRK impact being accommodated. The achievement of second strategy is performed by increasing the support of road safety facility, intersection system management, improving service of modes of transportation integration, the functionality of transportation facility and infrastructure and percentage of cultural region. The strategic target elaboration and performance indicator could be clearly seen in the Table 9.

Based on mentioned strategic plan, then Dishubkominfo is drafting performance indicator for each item as mentioned on Table 10. There is something interesting to be discussed on table 8. Performance on vehicle testing unit coaching determination and transportation infrastructure that served well set by 100% for the performance score. These points indicate that both points are considered as key factor for success on DIY Province sustainable transportation management.

Table 7. Transportation Sector Core Activity and its Budget (Rp million)

No	Program/Activity	2010		2011		2012		2013	
		Ceiling	Realiza- tion	Ceiling	Realiza- tion	Ceiling	Realiza- tion	Ceiling	Realiza- tion
1	Vehicle Emission Test	75	74	59	59	70	70	73	73
2	Implementation of Design Type Test Registration and Physical Assessment of Motor Vehicles Abolishment	22	20	16	15	29	28	29	26
3	Control of Vehicle Test (PKB) Implementation	23	19	16	15	28	22	30	28
4	Rehabilitation/Maintenance of Buy The Service* Public Transport	465	441	667	642	777	763	930	929
5	Buy The Service* Public Transport Service Implementation	43,343	39,774	42,258	38,379	40,850	37,429	43,391	40,567
6	The control of discipline of the public on the road transport operation	415	405	387	387	169	159	455	436
7	Law enforcement of excess cargo *	392	360	140	139	206	192	938	914
8	Trans Jogja Bus Facility and Infrastructure Development*	-	-	-	-	2,767	2,691	1,312	1,267
9	Facility and Infrastructure Development of Public Transport Service	636	506	288	287	-	-	313	279
10	Procurement of Traffic Signs*	178	176	293	288	-	-	-	-
11	Procurement and Installation of Traffic Control Device (A P I L L)*	902	890	-	-	1,467	1,456	895	877
12	Procurement and Installation of Traffic Signs*	-	-	-	-	380	358	998	943
13	Counseling activity for the drivers / helmsman to improve the safety of passengers	84	81	-	-	100	97	99	98
14	Procurement and Installation of Road Signs*	-	-	-	-	292	247	380	378
15	Custody of the train gate	-	-	-	-	71	71	67	67
16	Determination and arrangement of traffic management	-	-	-	-	-	-	96	91
17	Operation of ATCS on Yogyakarta City*	-	-	-	-	-	-	125	112
18	Facility and Infrastructure Development of Transportation*	-	-	-	-	160	156	-	-
19	Facility and Infrastructure Development of Public Transport Service *	-	-	288	287	-	-	-	-
20	Procurement and Installation of Road Signs*	-	-	-	-	-	-	-	-
21	Procurement and installation of Solar Power ATCS traffic signs on Urban Area	-	-	-	-	-	-	-	-
22	Excess Cargo Control	-	-	-	-	-	-	-	-
23	The arrangement of urban transportation at Yogyakarta **	-	-	-	-	-	-	3,000	359
24	Counseling for public transportation crew	-	-	-	-	-	-	-	-
25	Traffic Discipline and Public Transportation Control	-	-	-	-	-	-	-	-

Sources: RAD-GRK of DIY Province, 2012

Table 8. Transportation Sector Supporting Activity and its Budget (Rp million)

No	Program/Activity	2010		2011		2012		2013	
		Ceil- ing	Real- ization	Ceil- ing	Real- ization	Ceil- ing	Real- ization	Ceil- ing	Real- ization
1	Rehabilitation Projects / Maintenance Of Weighing-Bridge Facilities And Infrastructure *	353	343	376	366	990	941	692	675
2	Collection And Analysis Of A Transport Service Database	400	378	376	363	359	345	224	206
3	Licensing Facilitation In The Transportation Sector	90	75	78	76	69	68	63	61
4	Road Network Performance Evaluation	136	134	173	171	128	98	194	186
3	Coordination Of Guidance And Supervision Of Mining Business Across The Province	40	37	32	32	40	40	47	43
4	City Transportation Service Improvement Planning	202	185	-	-	155	128	311	250
5	A K D P Transportation Service Improvement Planning	177	168	-	-	-	-	196	177
6	Trans Jogja Performance Evaluation*	-	-	372	370	-	-	122	107
7	Transportation Facility And Infrastructure Development Planning	62	55	-	-	-	-	-	-
8	Rehabilitation And Maintenance Of Train Safety Facility	-	-	-	-	24	22	15	15
9	The Buy The Service* Public Transport Performance Evaluation	-	-	-	-	-	-	122	107
10	Road Safety Facilitation (DAK)*	-	-	-	-	-	-	1,968	1,913
11	Trans Jogja Performance Evaluation*	60	60	150	102	-	-	-	-
12	The Buy The Service* Public Transport Performance Evaluation	-	-	-	-	-	-	122	107
13	Coordination Of Facility And Infrastructure Development Of Transportation	29	27	-	-	-	-	-	-
14	Land Transport Terminal Management Improvement*	-	-	482	435	-	-	-	-
15	Rehabilitation And Maintenance Of Train Safety Facility	-	-	-	-	-	-	-	-
16	Initiation Of Fast, Right, Cheap And Easy Service Activities	199	195	-	-	-	-	-	-
17	City Transportation Service Improvement Planning	-	-	84	83	-	-	-	-
18	The Train Traffic Flow Safety Improvement	123	122	-	-	-	-	-	-
19	Rail Network Performance Evaluation	61	61	-	-	-	-	-	-
20	City Transportation Service Improvement Planning *	-	-	84	83	-	-	-	-
21	Road Safety Audits	-	-	-	-	-	-	-	-

Source: RAD-GRK of DIY Province, 2012



Table 9. Transportation Sector Strategic Target

No	Strategic Objectives	No	Performance Indicator	Unit
1	Increase public services especially in the transportation systems arrangement and access for people in rural area	1	<i>Load factor</i> of public transportation in urban area in Yogyakarta	%
		2	Implementation on urban area based management	%
		3	Implementation on Yogyakarta mode integrated parking system	%
		4	Performance on safety transportation control and supervision	%
		5	Performance on vehicle testing unit coaching	%
2	Transportation infrastructure provision that effective, efficient, technologically fitted, low emission with high level of safety	1	Increase on road traffic safety support facility	%
		2	Intersection control system	%
		3	Increase on inter mode transportation services	%
		4	Transportation infrastructure that served well	%
		5	Percentage on culture area improvements	%

Source: LAKIP Dishubkominfo Prov. DIY 2013

Table 10. Determination of Strategic Sector Performance Targets

No	Strategic Objectives	No	Performance Indicator	Unit	Target
1	Increase public services especially in the transportation systems arrangement and access for people in rural area	1	<i>Load factor</i> of public transportation in urban area in Yogyakarta	%	34,5
		2	Implementation on urban area based management	%	8,4
		3	Implementation on Yogyakarta mode integrated parking system	%	20
		4	Performance on safety transportation control and supervision	%	90
		5	Performance on vehicle testing unit coaching	%	100
2	Transportation infrastructure provision that effective, efficient, technologically fitted, low emission with high level safety	1	Increase on road traffic safety support facility	%	80
		2	Intersection control system	%	20
		3	Increase on inter mode transportation services	%	30
		4	Transportation infrastructure that served well	%	100
		5	Percentage on culture area improvements	%	19

Source: LAKIP Dishubkominfo Prov. DIY 2013

Another stressing point needed to be considered and become core priority for DIY province Dishubkominfo are performance on safety transportation control and supervision that scores 90% and increase on road traffic safety support facility that scores 80%. From the priority determination side, these four point performance indicator could describe as real commitment of Dishubkominfo as an effort to manage various problem in transportation sector that will get better in the future. In addition, all of these points supposed to obtain special appreciation as inspiration for another area in Indonesia.

However, some points that need to be noted and also to be stated in relation to Intersection control system that only scores 20%, implementation on Yogyakarta mode integrated parking system that also scores 20%, and increase on inter mode transportation services that scores 30%. Load factor of public transportation in urban area in Yogyakarta that still on 34,5% in points also needed to be considered along with the motorization phenomenon increase in DIY province.

### C. RAD-GRK and LAKIP Document Synergy Analysis

The analysis of the construction of RAD-GRK and LAKIP document's program and budgeting could be seen on Table 10. In general, the programs that included on RAD-GRK document has aligned with the formulation of Transportation Sector's strategic target and performance indicator which available on LAKIP. From the 25 core activities on RAD-GRK document, 80% of it could be elaborated on each strategic target and performance indicator of LAKIP. Only five core activities on RAD-GRK which are could not be elaborated on strategic target and performance indicator of LAKIP. The five activities are:

- a) *Vehicle emission test;*
- b) *Train gateway monitoring;*
- c) *Public transport facility and infrastructure development;*
- d) *Yogyakarta City transportation management;*
- e) *Counseling for public transport crew;*

For the core activity of vehicle emission test is actually in tangent with the first strategic target (the improving public service especially on transportation system management and villager access to transportation) of performance indicator of vehicle examination unit management. Meanwhile the core activity of train railway monitoring could be synergized with the first strategic target (improving public service especially on transportation system management and villager access to transportation) the control and monitoring of transportation safety performance indicator, and also the second strategic target (procurement of facility and infrastructure

of transportation which is effective, efficient, technologically right, low emission with high safety standard) the improvement of road safety supporting facility.

Whereas the core activity of public facility and infrastructure development as well as Yogyakarta City transportation arrangement could be classified as second target (procurement of facility and infrastructure of transportation which is effective, efficient, technologically right, low emission with high safety standard) the improvement of inter-mode transportation service performance indicator. The counseling of public transport crew could be aligned with the first strategic target (improving public service especially on transportation system management and villager access to transportation) the control and monitoring of transportation safety performance indicator

## IV. CONCLUSION

The urban planning and management of an emerging country is facing a huge challenge. The urban citizen of the world is growing in a phenomenal level. In a several urban area there is an addition of more than a quarter million people every year that overwhelmed the entire effort being done, to enhance the facility of the urban area. Meanwhile, the previously grown cities keep expanding without any clear limitation. The huge challenges related to the city growth are closely related to migration activity, especially on an emerging country. Since migration has increased flows of motorization that cause the urban area congestion.

Regarding the traffic congestion itself, it has been a very serious problem in a several big cities in Indonesia. The impact it caused to health and human welfare as well as the ecosystem has created humongous economic losses, hence it needs to be managed immediately. Besides, the Government has stated their serious commitment to handle the impact of transportation system congestion in urban area on Presidential Decree (Perpres) mechanism number 61<sup>st</sup> of 2011 regarding the creation of national action plan to reduce greenhouse gases emission (RAN-GRK) that also integrated into regional action plan (RAD) to reduce the greenhouse gasses emission.

Indifference with the other region, the Special Region of Yogyakarta (DIY) is one of the regions that facing a problem related to traffic congestion and transportation sector management. On 2012, DIY province has issued a Governor Decree (Pegub) No 51<sup>st</sup> of 2012 regarding Regional Action Plan to Reduce Greenhouse Gases Emission (RAD-GRK). Considering its urgency, on the construction of RAD-GRK document, DIY Province places transportation along with energy sector as their core priority

program that should be handled.

On a few cases on Regional Government, the planning and budgeting program often unsynergized, overlapping, or even neglected. By using the analysis of alignment between programs on RAD-GRK document and LAKIP, it could be stated that in general the programs on RAD-GRK document has been aligned with the formulation of strategic target and performance indicator of transportation sector contains on LAKIP. From 25 core activities on RAD-GRK, 80% of it could be elaborated on each strategic target and performance indicator of LAKIP, Meanwhile for the supporting document the RAD-GRK with LAKIP document's strategic target and performance indicator has been aligned approximately around 52%.

Even though most of the program has been aligned, further, several activities still need an adjustment for the sake of harmony of the program planning, as well as budget optimization on APBD. Moreover, if we look on unsynergized program such as the Trans Jogja Evaluation, instead, this already had huge allocation on the APBD Budget based on RAD-GRK document. Other important thing is to revise the RAD-GRK document by including the performance indicator planning of application of integrated parking system of city transportation mode at Yogyakarta, and also the percentage of cultural region management on RAD-GRK document either in the core or supporting activity level.

## ACKNOWLEDGEMENT

On this paper, author will expressed his gratitude to the Fiscal Policy Agency (BKF) which have provided data for this study. And also many related stakeholders which has supported the implementation of research activities so that this study can be completed.

## V. REFERENCES

ADB. (2002). *Increasing Air Quality on The Cities: Strategy and Local Action*. Jakarta.

Ajani, J. I., Keith, H., Blakers, M., Mackey, B. G., & King, H. P. (2013). Comprehensive Carbon Stock and Flow Accounting: A National Framework to Support Climate Change Mitigation Policy. *Ecological Economics*, 89(May 2013), 61–72. <https://doi.org/10.1016/J.ECOLECON.2013.01.010>

Bappeda. (2013). *DIY Province Healty Profile*. Jakarta.

Brunn, S. D., Williams, J. F., & Zeigler, D. J. (2003). *Cities of the world: world regional urban development* (3rd ed.). Lanham Md.: Rowman & Littlefield.

Devas, N., & Rakodi, C. (1993). *Managing Fast Growing Cities: New Approach to Urban Planning and Management in Developing World*. New York: Longman Scientific & Technical.

Greaker, M., Stoknes, P. E., Alfsen, K. H., & Ericson, T. (2013). A Kantian Approach to Sustainable Development Indicators for Climate Change. *Ecological Economics*, 91(July 2013), 10–18. <https://doi.org/10.1016/J.ECOLECON.2013.03.011>

Haryanto, J. T. (2010). *Manajemen Pengelolaan Transportasi yang Berkelanjutan*. Yogyakarta: Diandrcreative.com.

Kustiwan, I., Pontoh, N. K., Ardjo, A. T., & Ananda, R. J. (2009). *Pengantar Perencanaan Perkotaan*. (Tuti Sarah, Ed.). Bandung: Penerbit ITB.

Muller, N. Z., & Mendelsohn, R. (2007). Measuring the Damages of Air Pollution in the United States. *Journal of Environmental Economics and Management*, 54(1), 1–14. <https://doi.org/10.1016/J.JEEM.2006.12.002>

Rickels, W., Rehdanz, K., & Oschlies, A. (2010). Method for Greenhouse Gas Offset Accounting; A Case Study of Ocean Iron Fertilization. *Ecological Economics*, 69(12), 2495–2509. Retrieved from <https://ideas.repec.org/a/eee/ecolec/v69y2010i12p2495-2509.html>

UNDP. (2015). *Public Spending and Budget Tagging Review for Climate Change Mitigation in DIY Province*. Jakarta.

## Regulations

Law Number 23 Year 2014 on Local Government;

Law Number 24 Year 2007 on Disaster Management;

Law Number 26 Year 2007 on Spatial Planning;

Law Number 32 Year 2009 on Environment Protection and Conservation;

Presidential Regulation Number 61 Year 2011 on Developing National GHG Emission for Mitigation Action Plan;

Governor Regulation Number 51 Year 2012 on Developing Local GHG Emission for DIY Province Mitigation Action Plan;

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