

Effectiveness and Efficiency of Urban Environmental Programs

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Abstract: Sustainable development is an effort to maintain environmental quality. Sustainable development aims to balance the economic, social and environmental sectors. The implementation of environmental programs in urban development is needed to realize sustainable development. The purpose of this research is to find out whether the implementation of environmental programs has been carried out effectively and efficiently. The method used is quantitative and qualitative with data in the form of the implementation of the 2012-2016 Yogyakarta RPJMD environmental program activities. The analysis used is the evaluation of implementation with the criteria for evaluation of effectiveness and efficiency. The results obtained show that the implementation of environmental programs in the city of Yogyakarta has not been effective and not yet efficient. This condition shows that development in the city of Yogyakarta has not yet realized sustainable development.

Keywords: sustainable, environment, city, evaluation

I. INTRODUCTION

development is an effort made by humans to realize their desires and fulfillment of their life needs. The development that has been carried out is more concerned with progress in the economic field and fulfillment of social needs. Economic and social interests are prioritized in development because the impacts resulting from development in the sector are more measurable and there are visible changes and differences in an area in terms of physical conditions and economic benefits. Development that is more oriented towards the economic and social sectors causes the environmental sector to be a sector that is disadvantaged and damaged due to the development process (Sun et al. 2017; Vahidi & Ghomsheie, 2015). Sustainable development then arises to overcome development problems that are more oriented to the economic and social sectors (Riley 2001).

Sustainable development is development that has a goal to balance the economic, social and environmental sectors (Keene and Puulin 2011). Sustainable development wants that the development that has been done not only has a short-term impact but has a long-term sustainable impact. Sustainable development is an effort to preserve the ecological services produced by the environment (Omer 2008). Today humans

still need ecological services, such as providing oxygen and the availability of raw materials, but humans forget their dependence.

Development planning for a region has begun to apply the concept of sustainable development in every program plan and development activity. The environmental sector is the sector that is highlighted in the development planning of a region, to see whether the plan of activity has been carried out effectively and efficiently so as to produce impacts as planned (Nielsen and Ejler 2008). Regional development planning is outlined in long-term planning and mid-term planning, which is then made a program plan and annual activities.

Regional development plans that implement sustainable development, one of which is the development plan of Yogyakarta City. The city of Yogyakarta is the center of 3 main activities in the Special Region of Yogyakarta, namely as the center of government, education center and tourism center. This condition causes development in the city of Yogyakarta to be more directed towards the economic and social sectors (Prihatin 2015). Development that is more directed towards the economic and social sectors is then in the medium-term development plan of 2012-2016 the city government of Yogyakarta prepares a development plan with one of its development strategic plans with "Improving the quality of urban environment in accordance with quality standards" (RPJMD Kota Yogyakarta 2012).

An evaluation of the results of the implementation of activities and development programs in the environmental sector in the city of Yogyakarta needs to be done to find out whether the plan has been planned properly or not. Based on these conditions, this study aims to determine whether the activities and programs have been effective and efficient in realizing the environmental sector development plan in the city of Yogyakarta. The effectiveness and efficiency of the implementation of the activity or program becomes a benchmark of whether the program is successful or not and whether it is able to have a positive impact on environmental conditions in the city of Yogyakarta.

II. METHODOLOGY

This study uses quantitative and qualitative approaches, evaluation is carried out by analyzing the results of the implementation of environmental programs that have been carried out with evaluation criteria for effectiveness and efficiency. Evaluation is carried out by evaluating the activities of each program planned by the city government of Yogyakarta in the 2012-2016 medium term development plan (RPJM). Evaluation is based on evidence of

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implementation especially the achievement of the objectives of the activity and absorption of the budget.

III. METHODS

3.1. Data Collection

This research data is secondary data, where data is obtained from the Yogyakarta city environmental service in the form of reports on the implementation of activities from 2012-2016. The data used is the data on the achievement of objectives or target activities and the absorption of the budget carried out during the period 2012-2016. The report on the implementation of activities is shown in **Table 1**.

Table 1. Yogyakarta City Environmental Sector Programs and Activities for 2012-2016

Program	Activities
Green Open Space Management Program	City Park Improvement.
	Green Line Improvement.
	Maintenance of City Parks.
	Green Line Maintenance.
	Improving the Quality of Urban Area Open Space.
Pollution and Environmental Damage Control Program	Water Quality Monitoring and Control of River Water Pollution.
	Air Quality Monitoring and Air Pollution Control.
	Control of the Impact of Climate Change.
	Environmental Document Review and Licensing.
	Supervision of Environmental Policy Implementation and Environmental Case Management.
Capacity Building and Information Access Program for Environmental Resources	Increased Participation, Education and Access to Community Information in Environmental Control.
	Capacity Building, Environmental Laboratory Facilities and Infrastructure.
	Coordinating Assessment of Adipura, Adiwiyata, Kalpataru, Kehati, Kampung Hijau and Environmental Evaluation.
Natural Resource Conservation Program	Groundwater Control and Conservation.

Source: *Medium Term Development Plan (RPJM) Yogyakarta City 2012-2016*.

3.2. Research variable

Research variables use evaluation criteria that have been concluded from Dunn, 2003, OECD, 2010, and Bappenas, 2009. The research variables used in this study are shown in Table 2. Evaluation is carried out by evaluating each activity from the environmental sector program, then evaluating results. each activity is used to conclude whether the

program has met the evaluation criteria for effectiveness and efficiency.

Table 2. Criteria for evaluating environmental sector activities

Evaluation Criteria	Variable	Indicator	Discussion
Effectiveness	Achievement of objectives	Achievement of target activities	Effective if the activity target is reached Ineffective when the target is reached
Efficiency	Cost and Time	1. Budget Expectation 2. Timeliness of activities	Efficient if the funds are optimally absorbed and the target of activities is achieved within the planned timeframe or the activity target is fulfilled within the planned period with the minimum budget absorption Inefficient if the budget is not absorbed optimally and the target of activities is not achieved within the planned timeframe

Source: Sunariya 2019.

IV. RESULTS

The results of this study show that from the 4 environmental sector programs in the Yogyakarta City RPJMD, no one has met the evaluation criteria for effectiveness and efficiency. The evaluation criteria for effectiveness and efficiency were not fulfilled because there were only 4 activities out of 14 activities that met the evaluation criteria both effectiveness and efficiency. The evaluation results show that only 4 activities were able to utilize the budgeted funds within 5 years (2012-2016) and achieve the target activities planned at the beginning of development planning. The evaluation results are shown in **Table 3**.

Table 3. Results of evaluation of activities and conclusions of environmental sector program evaluations

Program	Activities	Efficiency	Effectiveness	Conclusion
		cy	s	n



Green Open Space Management Program	City Park Improvement.	X	X	Ineffective and inefficient
	Green Line Improvement.	X	X	
	Maintenance of City Parks.	X	X	
	Green Line Maintenance.	X	X	
	Improving the Quality of Urban Area Open Space.	X	X	
Pollution and Environmental Damage Control Program	Water Quality Monitoring and Control of River Water Pollution.	X	X	Not yet effective and efficient because there are 3 activities that have been effective and efficient
	Air Quality Monitoring and Air Pollution Control.	V	V	
	Control of the Impact of Climate Change.	V	V	
	Environmental Document Review and Licensing.	X	X	
	Supervision of Environmental Policy Implementation and Environmental Case Management.	V	V	
Capacity Building and Information Access Program for Environmental Resources	Increased Participation, Education and Access to Community Information in Environmental Control.	V	V	Not yet effective and efficient because there is one activity that has been effective and efficient
	Capacity Building, Environmental Laboratory Facilities and Infrastructure.	X	X	
	Coordinating Assessment of Adipura, Adiwiyata, Kalpataru, Kehati, Kampung Hijau and	X	X	

	Environmental Evaluation.			
Natural Resource Conservation Program	Groundwater Control and Conservation.	X	X	Ineffective and inefficient

Source: Sunariya 2019.

The evaluation results from 4 programs show that development in the city of Yogyakarta has not met the criteria of sustainable development, because the activities and programs that have been made have not been successfully implemented in accordance with the plans made in the beginning. Thus, development in the city of Yogyakarta still has to strive to meet the target targets of activities that have been carried out before assessing whether the activities have had an impact on changing the environmental conditions of the city of Yogyakarta to be even better.



Figure 1. Some Poto of Environmental Sector Activities in Yogyakarta City

Source: Badan Lingkungan Hidup Yogyakarta City



V. DISCUSSION

Environmental sector development planning has been a topic in the world for a long time, even in 2005 there were more than 2600 environmental organizations based in America (Straughan and Pollak 2008). Conditions show that the world has realized that the environment has become a sector that has suffered damage and losses in development. Development planning in the city has been aimed at sustainable development. Development planning is carried out by utilizing environmental conditions without causing the environment to be threatened and damaged (Khalili and Duecker 2013; Ardakani et al, 2015).

Current city development programs and activities have also tried to preserve the environment, this condition has been carried out not only in Yogyakarta but also in Bandung, Indonesia and other city cities such as in city cities in China (Sun et al. 2017, Tarigan et al. 2016). The problems faced in the development of the environmental sector are the efficiency and effectiveness of the implementation of the program, because if the planned programs and activities are not appropriate, the expected impacts will not be achieved (Keene and Puulin 2011). Innovation in planning and implementing environmental sector programs and activities is important so that the implementation of program and activity plans becomes effective and efficient (Silvestre and Diana 2018; Özer et al, 2018).

Ineffective and efficient implementation of programs and activities in the environmental sector in Yogyakarta City, shows that the implementation process and efforts to achieve the plan implemented are still not optimal. Efforts to make the effective and efficient implementation process need to be carried out so that the impact of these programs and activities can be felt by the people of Yogyakarta City and to realize sustainable development in the city of Yogyakarta.

VI. CONCLUSION

The implementation of the environmental program in the city of Yogyakarta has not been effective and yet efficient. This condition shows that development in the city of Yogyakarta has not yet realized sustainable development. There needs to be an effort and innovation in the implementation of activities and programs so that sustainable development that maintains environmental conditions can be realized

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