

GOOD GOVERNANCE FOR SUSTAINABLE DEVELOPMENT: MUNICIPAL WASTE MANAGEMENT

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Abstract

This paper explores the management of waste and strategies in dealing with environmental problems. The increasing tourism activities and the weakness of garbage management in traditional markets are the challenges of waste management in Batu City. While, the industrial waste of Malang Regency generates social protest and bring the disadvantages on the quality of water of Brantas River. The practice on sustainable development model required the roles of state to achieve society welfare by considering economic, social, and ecological dimensions. This study examine the policy making and institutional coordination as the efforts to perform good governance principles. The government of Batu City invest on sewage treatment plant in Tlekung dump landfill (Tempat Penampungan Akhir-TPA) to produce liquid fertilizer and methane gas as the end of its process. Monitoring and evaluation on industrial waste management system (IPAL) becomes the policy of Malang Regency to preserve the quality of water. The parliament members gain the manufacture industry owner's attention on waste responsibility through visiting and socialization programs.

Keywords: *good governance for sustainable development, local government, waste*

INTRODUCTION

Waste is a generic term used to describe material that has no obvious or significant economic or other benefits to humans. Industrial waste is generated by activities such as manufacturing, mining, coal, combustion, and oil and gas production. While, municipal solid waste (MSW), means the garbage and trash generated by households, offices, and similar activities (Switzer & Bryner, 1998: 90-1).

Industrial waste and garbage (household garbage and domestic waste) are a common environment problem in urban areas (Switzer & Bryner, 1998: 88-9). But the rising of modern society and rising the environmental awareness demanded the right on healthy and safety envi-

ronment. Therefore, it makes state policy on the waste management system get more social attention.

The debate on development practice relates to political and social dimensions. Politically, the strategy and policy making to achieve the economic growth and society welfare question the government performance and legitimacy. Based on social perspective, modernization and progress integrated in the state development model must ensure the quality and equality of public service (Kusumaningrum, 2014). The environmental problem is the challenge on the practice of development in every country, especially Indonesia as the case study. Since sustainable development becomes the ideal paradigm, claim toward the success of development in every countries reflected

the roles of government to improve the quality of individual life. Therefore, this research would like to explain how the local government¹ of Malang Regency and Batu City response the problem of municipal waste.

The manufacture activities support local income and the major alternative to expand employment in Malang Regency. The activity of industrial sectors resulted water pollutant as the main problem for Brantas river. Whereas, the landscape of Batu City brought some advantages not only for agriculture production such as milk, vegetables and fruits but also tourism development. Batu City is located for mega project of tourism parks invested by Jatim Park Group. Hotels and restaurants have been achieving the international standard to support the local government goals to realize city planning policy as the prominent tourism destination in Indonesia. Unfortunately, the advancement on tourism development generates the increasing amount of waste.

The Indonesian mitigation policy in dealing with climate change issue represent the practice of a good governance principles in respond to the global environmental problems. The municipal waste is a part of environmental problem since it produces the one of green house gasses. The local government establish the policy of waste management due to the effort to realize responsible and accountable principles. Therefore, the role of local governments to implement mitigation policy of municipal waste management is seen as the internalization of sustainable development model.

This research supports the environmental regime theory that believes in the values of economic growth, globalization, trade, foreign investment, technology, and the notion of sustainable development. It emphasizes the need for stronger global institutions and norms as well as sufficient state and local capacity to constrain and direct the international political economy. The problem of environmental scarcity, population growth, and growing inequality between and within states is able to be overcome by the strong capacity of institution to protect the common goods. The lack of global cooperation becomes a key source of environmental degradation. The institutions need to internalize the principles of sustainable development, including into the decision-making pro-

cesses of the state, bureaucracies, corporations, and international organizations because the environment problems are also seen as the governance problems (Clapp & Dauvergne, 2005).

METHOD

It used qualitative research method by deductive reasoning technic of analysis. The qualitative research was conducted by collecting secondary data as the instrument of research such as literature review and observation.

The data and information gained from the interpretation of document and online publications compiled from the government database, the finding of research publications, and articles of mass media related to the issue.

The observation was conducted to complete the library research and to strengthen the statement of local government refer to the relations between tourism activity and production of municipal waste. It examined the the activities of visitors in several tourism destinations at Batu City.

Good Governance for Sustainable Development

Environmental problem is considered as the impacts of economic growth and triggers the society awareness and cooperation. It debates on the quality of individual life and the scarcity of resource (WECD, 1987). Publication of 'Our Common Future' by the World Commission on Environment and Development (Brundtland Report) emphasizes resource management and control of fossil energy consumption in the economic growth target for the survival of the next generation. It means development must integrate economic interest, political commitment, and ecological well-being (Jordan, 2008).

Sustainable development based on ecological sustainability perspective is seen as an issue of development within the ecological boundaries and carrying capacity of the planet. It needs the institutional roles, that is governance to steer the process. It can be seen as a collection of rules, stakeholder involvement and processes to realize a common goal (Zeijl-Rozema et al, 2008).

This paper will potrait the modes of local government as hierarchical governance that inter-

¹ In this paper, the local government refers to the both of the administrations: Malang Regency (Kabupaten Malang) and Batu City (Kota Batu) in East Java

nalizes the ecological perspective. The administration characterized by its decision usually is taken by the leading actor, often the government. A vertical relation exists between the leading actor and other actors in society. Sustainable development is seen as a goal that can be objectified based on scientific evidence. Goal-setting is done to a large extent by the leading actor; consensus exists that development should take place within ecological limits. Implementation of the sustainable development goal is decided upon by the leading actor in a straightforward process with little discretion for those implementing it. Solutions are mainly sought in the domain of technical fixes. Other actors are not necessarily committed to sustainable development but they follow the leader. The focus in this type is on goal achievement. Monitoring and evaluation indicators will be output oriented (Zeijl-Rozema et al, 2008).

RESULTS AND DISCUSSION

The discussion will be conducted in some parts; *First*, development must integrate economic interest, political commitment, and ecological well-being. The environmental problems are linked to the aspects of 'human security'. The commitment of Indonesia to practice sustainable development is stipulated in climate change mitigation policy. Since then, the municipal waste management become the political and socio-economic matters as a part local government responsibility.

Second, the impact of development in Malang Regency and Batu City contributes to the industrial waste and urban garbage. The policy making and institutional coordination respond to the environmental problems are seen as the practice on responsible and accountable principles (good governance for sustainable development). The structure of the essay should be in a separate section with the methods.

The environmental issue emerged as the global discourse which focus on the increasing demand on the quality of human life against the scarcity of resources. It trigger the state roles to manage resource aimed to reach the target of economic growth while ensure the need of poor people. It is noticed that environmental problems linked to human survival, well-being, and productivity as the aspects of 'human security'. Based on this condition, it is required to bring politics back into the discussion (Kegley Jr. &

Wittkopf, 1999: 311-42). This research portrayed the waste as environmental problem, and how the strategy of local government is in policy making and institutional coordination in dealing with municipal waste management.

Sustainable development model is the main concern in Indonesia. It can be seen in the national government commitment on the project of carbon emission reduction action. Presidential Decree No. 61 of 2011 on the National Action Plan for Greenhouse Gas Emission Reduction (RAN-GRK) required local administration cooperation to reach the 41% target. According to the Ministry of National Development Planning (Bappenas), the state will create the healthy life for the society; represent low carbon emission, and sustainable development model that need the multi-stakeholder partnership. Based on climate change mitigation policy the waste management is a part of local government responsibility. The implementation of development strategy in sub-state administration must be in line with economic, social, and ecological target of indicators (The Ministry of National Development Planning, 2011).

This study examined that the local government of Malang Regency enforces the national law on environmental protection by establishing the Local Regulation No. 10/2012 on Waste Management. The government creates a policy coordination about monitoring and evaluation on the quality of the water based on ecological indicators. It has policy coordination with Environmental Agency (BLH). While, the local government of Batu City develops industrial waste management system (IPAL), optimizes landfills and invests on the advancement of the technical process of municipal waste to be benefits for agricultural and domestic used. Moreover, the legislative board members of Batu City participate in visiting the factories and running socialization programs of local government environment policy.

Batu City is a part of East Java, Indonesia with 197,087 km² length and consists of approximately 168,155 populations in 2001. Batu City has three subdistricts; Bumiaji, Batu, and Junrejo, 4 kelurahans, dan 19 villages. The region of Batu City is surrounded by mountains, such as Panderman (2010m), Welirang (3156m), and Arjuno (3339m). Therefore, it has a cool and nice weather with temperature of around 21,5°C-27°C. The beautiful scenery and wonderful lanscape of nature is granted to Batu City as the one of prominent tourism destinations in Indonesia. (The

Ministry of Public Service, 2012). The geographic advantages of Batu City give the opportunity of people to advance agriculture products, i.e. oranges, apples, avocado, organic vegetables, and flowers. In order to realize the city planning policy as “Kota Wisata Batu”, the local government and private stakeholder build mega projects of tourism destinations such as *Jatim Park*, *Secret Zoo*, *Museum Angkut*, *Batu Night Spectacular*, *Eco Green Park*, etc.

65% of the Batu City regional income depends on the tourism sector (Simamora, 2012) and 44% of the prominent economic activities are dominated by trading activities, restaurant, and hotels (Batu City Government, 2001). The mega project of tourism development gives the impact on the increasing of the quality of society life. Based on Human Development Index, Kota Batu occupies the 9th rank for all regions in East Java. Unfortunately, the development of the tourism sector in Batu City contributes towards the increasing amount of garbage significantly. According to the Waste Management Section Head Office of Human Settlements and Spatial Planning (DCKTR) Batu City, the waste deposits mostly came from traditional market- Pasar Besar Batu, tourism objects, restaurants and household. Head of Hygiene Department of Human Settlements and Spatial Planning (DCKTR) Batu City strengthened this phenomenon. It is noted that every weekend and long holidays the waste in Batu City increased by 10% per day. Even during long holidays, such as Christmas and New Year waste volume increased by 7-10 tons per day (Sofi'i, 2015). This makes more waste piled up in the landfill Tlekung and causes odor. People put the domestic waste along the side of the road to the location of garbage landfill as a result of the overflowing waste. Delays in making and transporting waste by waste haulers cause public unrest and social protest. In general, Batu City is still constrained in addressing the waste production of 425 m³ per day. The capacity of local government is able to handle 150 m³ per day. There is the unbalance of the ratio of the production of municipal waste compare with the waste hauler and its infrastructure. By considering each individual produces 3 litre waste per day and the total population of Batu City is 163,393 inhabitants, the amount of the waste needed to be hauled is 340.18 m³ per day (The Ministry of Public Service, n.d.).

The government of Batu City pay serious attention to the problem of municipal waste by establish *Local Regulation No.7 of 2011 about*

Regional Spatial Plan of Batu City 2010-2030. In the article of 8 it mentions, the Government is committed to realize the Batu City safe, comfortable, productive and sustainable. The practice of sustainable development understood as a priority on economic growth based on agriculture, tourism, and ecologically protect the water reserve system as maintaining supply of Brantas River. Thus, the waste management is the one of strategies to support government public services due to realize the establishment of urban settlements that environmentally comfortable and safe (The Ministry of Law and Human Rights, 2012).

Based on the article 28, the waste management systems in Batu City consist of such kinds of process; 1.) Sorting by type, number and characteristics of the waste, 2.) To haul and transport the waste to landfill (TPA), 3.) to process the waste by changing it form until the final results that safe for the environment. The final processing of landfill site located in Desa Tlekung Kecamatan Junrejo, dan Sebrang Bendo di Desa Giripurno Kecamatan Bumiaji with organic waste composting technology, the technology of recycling inorganic waste, as well as sanitary landfill.

As part of the local government's commitment in managing urban waste, the landfill Tlekung waste recycling plant was built to produce liquid fertilizer. The production reached an average of 675,000 liters. The local government investment to build a blower installation by the end of 2014 was approximately USD 200 million. After it already met the standards of laboratory testing, production of liquid fertilizers will be handed over to the farmers, through the Department of Agriculture and Forestry Batu City. The Tlekung waste recycling plant not only produce liquid fertilizer but also methane gas which is used as the fuel for cooking. The capacity of methane gas production is covered the needs of 55 homes around the landfill. However, there were 21 homes that had already used it (Fauzi, 2015).

Table 1.
Developments of Industry and Trade (2010-2013)

Industrial Scale	Years			
	2010	2011	2012	2013
Small Scale (Formal Sector)	1.238	1.232	1.232	1.359
Middle and Big Scale (Formal Sector)	308	346	346	408
Total Industry (Formal and Informal)	1.546	1.628	1.628	21.895

Source: The Investment Board (KPM) Malang Regency

On the other hand, Malang Regency faced the problem of industrial waste as the impact of the growing investment on industrialisation. According to the Head of Department of Trade, Industry, and Market, the government of Malang Regency has established the policy “Madep Mantep” to improve the welfare of the local society by realizing the program of “One Village One Product”. It could be seen as the commitment of the government of Malang Regency to empower the Small Medium Enterprise-SME (UKM). It supports the realization of the 2007 Presidential Directive No. 6, the 2008 Presidential Directive No. 5 and the Regulation of Ministry of Industry No 78/M-IND/PER/9/2007 on enhancing the effectiveness of SMEs. Based on data from Local Investment Department of Malang Regency (KPM) there were production of 21,895 manufacture activities in 2013. The development resource and local capacities of Malang Regency attract investment inside and outside borders. The local government policy about regional investment provides investors with easy business licensing, the common access of natural resources, raw materials, and the land site as the area of industrial park. It resulted the increasing of investment revenue for more than IDR 2 billion, including revenues from formal and informal sectors. Based on these policies of industrial development the giant and small-medium enterprise in Malang Regency are growing in number every year (Malang Post online, 2013).

Based on media report, the society of two area; Pandanlandung Village-Wagir District, Malang Regency and Kelurahan Bandulan-Sukun District, Malang City experienced the impact of industrial waste. In Wagir District, there are about 19 companies responsible to the disposal of liquid waste through drains near the public residences. Unfortunately, the liquid waste flows into the part of Brantas River which passing through Malang City. The condition of water performance in Brantas River was bubbling and had a terrible smell. It contained poisonous chemical waste and this condition made people afraid of consuming its water (Ary et al, 2015).

As the response to the environmental problem, the local government of Malang Regency did serious actions to overcome the industrial waste. *First*, the local government through Environmental Agency Board (BLH) and The Watershed Management Office (Kantor Pengelolaan DAS) monitored and evaluated the quality of water. Disposal of industrial waste has actually been regulated by the 2014 Decision of the Ministry of Environment No. 5 on *Wastewater Quality Standard*. The local governance practices the ‘integrated river monitoring patrol’ of the Brantas river. The Environmental Agency is the institution that executes this policy. It has tested the quality of output of waste management system (IP-AL-Instalasi Pengolahan Limbah) of manufacture industry by random sampling every year. Any company that does not obey the environmental standard will be punished by the government and it could be the legal jurisdiction to restore the licence of manufacture activities. *Second*, the local government limited the licence of private waste management system in order to prevent any violation made by companies about the environmental responsibility. *Third*, the internalization of environmental law and regulation is a part of parliament consideration. The member of D-Commission visited the manufacturing industry that accused as the actor that contribute to the illegal industrial waste disposal (The Parliament of Malang Regency, 2013). The socialization of the environmental law and regional regulation aimed to develop social awareness and strengthened the good relations between the parliament member to its constituents. Sometimes, the environmental problems is not only about law enforcement but also about to change the mindset and habits.

CONCLUSION

The waste management is the challenge of the local government of Malang Regency and Batu

City in accordance with the practice on good governance for sustainable development in the decentralization era in Indonesia. Both regions made strong efforts to achieve the economic benefits based on industry and tourism as the prominent development sectors.

Based on case studies in Malang Regency and Batu City, basically the local governments have strong commitment to live green city model through the municipal waste management policy. In the case of Malang Regency, the local government has attempted to overcome the water pollution of Brantas River by strengthening policy coordination between the Environmental Agency Board and the Watershed Management Office, as well as the support of the Commission D of DPRD Malang Regency. Furthermore, the local government of Batu City has invested on the construction of sawage treatment plant in Tlekung dump landfill and optimize it to produce liquid fertilizer and biofuel for households.

Therefore, it will be a great opportunity for the both local governments not only establish the infrastructure and ensure its function but also develop individual awareness through the environmental education and healthy life socialization. The problem of municipal solid waste in Batu City requires a multistakeholder cooperation and social awareness to support the city planning policy as the concept of tourism city. It is not only about the responsibility of the Sanitation and Gardening Agency (DKP) or the Tourism Department (Dinas Pariwisata) but also good willingness of the whole society. It is a great chance to create annual festival and competition on clean and healthy environment in order to internalize the education on environmental preservation. The government campaign through the banner, posters and televisions will be effective to announce and strengthen the environmental laws and regulations.

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