Sustainable Development in Local Government: A Lesson from Indonesia

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This research aims to describe the implementation of sustainable development in the city of Tangerang, Indonesia, and to investigate important factors influencing the performance of local governments in implementing developments of this type. Data for this case-study-based research was collected through document review and in-depth interviews, and transcripts and data were analysed using NVIVO version 10 software. The results show that, following the political reforms put in place in 1998, the sustainable development program implemented in Tangerang City has been very progressive. Tangerang’s success reflects synergy in three main aspects of sustainable development, namely, the economic, the social, and the environmental. The leadership, public participation and religion are found to be dominant factors determining the success of sustainable development.

Key words: Sustainable development, local government, leadership, public participation, religion.

Introduction

Sustainable development began to emerge as an issue in 1987, following the release of the Brundtland Commission’s reports on environmental conditions (Upadhyay & Brinkmann, 2010). The concept was based on the concerns of observers regarding the impact of developments carried out by countries across the world. The perceived changes in the environment at that time included climate change and various disasters resulting from environmental destruction directly caused by development. For scientists, there is a concern that if development is not environmentally oriented, the carrying capacity of the environment toward the sustainability of human life will actually decrease. In the long run, development that is intended to provide equality for humans can actually harm future generations (Gecevska et al., 2016)
As a country that is actively implementing development, Indonesia cannot exclude the concept of sustainable development from its development policy. The issue of sustainable development has become an international issue in terms of the shared need to maintain environmental sustainability and the continuity of human civilisation. As a manifestation of the adoption of the sustainable development concept, the government in Indonesia formed a ministry specifically tasked with managing the environment, namely, the Ministry of Environment.

The 1998 crisis that severely damaged the Indonesian economy revealed inherent problems in the development process that had been rolled out several years earlier. Economically, development produces pseudo-achievements, as revealed by data related to environmental damage that shows the development process has contributed to uncontrolled deforestation and natural resource exploitation (PEACE, 2007; Koch, 2012; Kurniawan and Managi, 2018).

Indonesian political reform then became the momentum for better implementation of development management. The implementation of a more democratic political system in 1998 was expected to be followed by development management more concerned with the carrying capacity of the environment. Since then, there have been five changes of the head of national government and four elections of heads of government at the regional level. This means that there have been various changes in approaches and strategies in the implementation of development resulting from these leadership changes, both at central and regional levels.

Along with the evolution of politics and development in Indonesia, at the global level, focus on the issue of sustainable development is becoming increasingly urgent. Various seminars and symposiums on sustainable development are held at international and national levels, indicating the strong attention of the world community, across governments, professional groups, and commerce (Milutinovic & Zivkovic, 2014). As an institution that initiated the concept of sustainable development, the UN is very committed to promoting and supporting the concept of sustainable development. The concept of sustainable development implementation has also been improved by a number of initiatives, from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs) (Satterthwaite, 2014).

However, at the Indonesian level, various environmental issues continue to emerge, and after 1998 there was a significant correction of data related to environmental damage in the country (Kurniawan & Managi, 2018). In light of this, it is interesting for the concept of sustainable development to be studied in the context of development within Indonesia.

In the Indonesian constitution, the environment is part of the authority of the regional governments and such governments; therefore, have an important role to play in the implementation of environmentally oriented development. Community expectations for better
quality development results are also placed on government administrators in the regions (Okrepilov, 2014). Agenda 21 (a UN agenda put in place by the Ministry of Environment at the end of 1996) explicitly emphasises the important role of regional governments in sustainable development (Satterthwaite, 2014).

Studies related to the implementation of sustainable development concepts in local governments have been carried out by scientists and practitioners; however most of these studies focus on certain sectoral themes, such as gender, education, participation, and decreasing carbon emissions (Pawlewicz, 2015; Hoppe and van Bueren, 2015; Willis, 2016). Meanwhile, this study focuses on the development of the application of the sustainable development concept in local government systems, especially in emerging countries, and its implementation. This perspective of study is important because it can recognise adaptive policy arrangements and innovative efforts made by a particular local government that can then be used as learning points for governments in other locations.

The purpose of this research is to answer the following research questions: (1) How is sustainable development implemented in local governments in Indonesia? And (2) What are the important factors that influence the performance of local governments in implementing sustainable development? In this case study, the local government chosen as the research locus is the city of Tangerang. This choice reflects two unique characteristics of the city, the first being that it borders the capital city of Indonesia, Jakarta. Given this location, various environmental problems of Jakarta also affect Tangerang, especially those related to air pollution. Second, Tangerang has received many awards both nationally and internationally in relation to the implementation of sustainable development.

**Literature Review**

**Sustainable Development in Local Government**

The concept of ‘sustainable development’ was introduced by the World Commission for Environment and Development (WCED) in 1987. However, the idea was not entirely new when it was introduced. The root concept of sustainable development can be recognised in the development approach that preceded it, namely the conventional or orthodox approach (Thomas, 2004). Likewise, Hardin's writing (1968), in referring to the “tragedy of the commons”, indicated that the idea of sustainable development had developed long before 1987. This was reflected in Hardin's view:

*The tragedy of the commons as a food basket is averted by private property, or something formally like it. But the air and waters surrounding us cannot readily be fenced, and so the tragedy of the commons as a cesspool must be prevented by different means, by coercive...*
laws or taxing devices that make it cheaper for the polluter to treat his pollutants than to discharge them untreated. (1968: 1245).

Sustainable development, based on the document *Our Common Future* (WCED, 1987), is defined as “development that meets the needs of the present without compromising the future generations’ ability to meet their own needs”. There are two key concepts contained in the formulation of the definition of sustainable development, namely the concept of needs and the concept of limitations. ‘Needs’ relate to the economic needs of the community, especially the poor and marginalised (WCED, 1987; Singh, Timothy & Dowling, 2003), whereas ‘limitations’ refer to the ability of the environment to meet both current and future needs. To realise sustainable development, there must be a stable relationship between these two key development concepts (Gecevska, Donev, & Polenakovik, 2016).

In later developments, the concept of sustainable development changes. The view that emphasises the relationship of only two aspects of development, namely economics and environment, is considered inadequate for the achievement of sustainable development. Based on the Club of Rome and the Stockholm Declaration, the concept of sustainable development is extended to include social content, in the form of the realisation of better living conditions (Deželan, Maskuti, & Uršič, 2014). As a result, the concept of development now integrates three important aspects, namely the economic, the social, and the environmental (Tzagkarakis, Kotroyannos, Kamekis, & Taliouris, 2017; Pawlewicz, 2015).

Over time, awareness of the environment has strengthened in the world community. In 1992, the United Nations held the Conference on Environment and Development in Rio. In the conference, the concept of sustainable development was agreed upon as a common goal of human development for the around 160 countries that attended the meeting. The conference produced an action program for Agenda 21. Since 1992, sustainable development has become a concept and goal widely used in international, national, regional and local politics (Gacesvka et al., 2016).

The concept of sustainable development has evolved and changes occur in the targets and strategies used to realise these targets. In 2005, the United Nations introduced the MDGs as goals and strategies for UN members around the world. Ten years later, the goals were updated based on considerations including the incompatibility of indicators used in the MDGs. As of January 1, 2016, the MDGs were replaced by the SDG program comprising 17 goals and 169 targets (Willis, 2016).

Meanwhile, the relatively fixed-aspect in the concept of sustainable development remains the placement of regional government as an important locus in the application of sustainable development (Deželan et al., 2014). The basis of this is that the various problems of sustainable
development and their solutions are within the authority of local governments (Satterthwaite, 2014).

**Leadership, Public Participation, and Religion**

In the analysis of the factors that influence the implementation of sustainable development in Tangerang, three main variables will be seen that are very important theoretically for the implementation of sustainable development in local governments. The first of these is leadership. According to Dartey-Baah (2014) and Milutinovic and Zivkovic (2014), the vision and strategic role of regional leaders in mobilising resources will determine the implementation of sustainable development in their regions. Likewise, regional leaders have the capacity to build collaborations and to direct regional apparatuses to work in synergy with efforts to create sustainable development (Slimane, 2012; Akins, Bright, Brunson, & Wortham, 2013). The second variable is public participation (Bass, Dalal-Clayton, & Pretty, 1997; Meadowcroft, 2004; Hawkins and Wang, 2012; Pimoljinda and Siriprasertchok, 2017; Kurniawan and Managi, 2018; Bednarska-Olejniczak, Olejniczak, & Svobodová, 2019). It is emphasised in Agenda 21 that public participation is a “fundamental prerequisite for the achievement of sustainable development” (UNCED, 1992, p. 219). This is because, with this participation, the community will more easily understand the issues involved in sustainable development and can thus determine more appropriate actions related to the issue (Bass et al., 1997). Likewise, public participation will encourage transparency and openness of government, and increase the commitment of those involved in the sustainable development process (Yvonne, 2010).

The third variable is religion. In analysis, religion is classed as a part of culture (Fitzgerald, 2007). However, in the context of Tangerang society that upholds religious values, religion needs to be seen as an entity that is distinguished from culture. Making religion an important variable in sustainable development is an issue that has been raised by several researchers (Marsuki, 2009; Narayanan, 2016; Ives and Kidwell, 2019). According to Altmann, Bunta, and Mazimpaka (2012), religion has a strong influence as a human motivator in the realisation of sustainable development. This reflects the similarities between religious values and the values of sustainable development, especially as related to the creation of a good life for people (Marsuki, 2009; Johnston, 2013).

**Method**

A case-study method was used in this study, as is often the case in sustainable development research. Examples of sustainable development research that applies this method include studies by Milutinovic and Jolovic (2010), Davids, Rouget, Boon, and Roberts (2018), and Cole (2017).
Data was collected through in-depth interviews and document review of published planning data and results relating to development in Tangerang. Data was obtained from official Tangerang government agencies, namely the local development planning agency, social services, and environmental services. This data is in the form of Regional Medium-term Development Plan (RPJMD) documents and development reports produced for Tangerang from 1998 to 2018. In-depth interviews were conducted to obtain information about the process of developing the city’s government strategy in implementing sustainable development. Interviews were semi-structured and conducted with seven participants who were senior government officers in charge of social, economic, and environmental sectors in Tangerang. The informants were drawn from the Social Services Agency, the Environmental Agency, the Regional Development Planning Agency, and the Economic Division.

Data obtained from documents and interviews were then processed and analysed according to qualitative descriptive research procedure. In this case, the results of the interview recordings were transcribed and the results of both the transcripts and the document data were analysed using NVIVO Version 10 software. Information produced was then displayed in the form of an easy-to-understand narrative about the implementation of sustainable development in Tangerang after the 1998 political reforms.

**Results and Discussion**

The Tangerang city government's commitment to sustainable development is presented in the regional long-term development planning document (RPJPD) 2005–2025 and also in various five-year development planning documents issued after the 1998 reform. In the 2005–2025 RPJPD document, the concept of sustainable development is contained in the third and fourth missions. The third mission of the city of Tangerang is “creating a beautiful and sustainable environment”. Through this mission, the Tangerang government seeks to manage natural resources and the environment sustainably, maintain the function and carrying capacity of the environment, and maintain the balance of harmonious use of space between protected and cultivated areas, and between developed regions and disadvantaged regions. The fourth mission, “realising city infrastructure, services, and facilities that are adequate and competitive”. Through this mission, the Tangerang city government directs the development of the realisation of a clean, beautiful, orderly, and safe city. The quality and quantity of urban facilities and infrastructure will continue to be improved to enable the needs of the community to be met while still taking into account the concept of environmentally sound development.

Aspects of the Tangerang RPJPD document related to the concept of sustainable development are also evident in its five-year development planning documents. Sustainable development is an important part of Tangerang’s 2004–2008, 2009–2013, and 2014–2018 RPJMDs. However,
as indicated by a number of planning documents, the effectiveness of the implementation of the concepts of sustainable development differs in each RPJMD period.

**RPJMD 2004–2008**

During the implementation of the Tangerang RPJMD 2004–2008, the attention of the city government toward the concept of sustainable development largely reflected only political considerations. Development practices in the environmental sector were minimally addressed. As a result, until 2008, Tangerang can be characterised as a city that was not environmentally friendly, as indicated by data that show weaknesses in development practices. In 2008, the area of green open land in Tangerang was only about 27.62% of the total area size, generally in the form of road and river borders, even though green open land is an important part of the environment for the absorption of water and is often seen as “the lungs of the city”. In addition, as a result of the behaviour of industry and the public who were unaware of the importance of the carrying capacity of the environment for human welfare, various types of pollutants contaminated air, water, and soil. Based on data collected by the local government in 2009, 12 of the 13 sub-districts of Tangerang had mildly polluted water quality.

The lack of respect of the Tangerang city government for the carrying capacity of the environment also received attention from the central government, which in 2006 designated Tangerang as the dirtiest metropolitan city in Indonesia. Thus, between the reforms of 1998 and 2008, few concrete steps were taken by the Tangerang city government in realising sustainable development.

**RPJMD 2009–2013**

The attention of the city government of Tangerang to the issue of sustainable development has only been evident since 2009. It is explicitly stated in the 2009–2013 RPJMD that the mission of Tangerang is to encourage the realisation of sustainable development. In the explanation of this mission, it appears that the city government has realised the importance of integration of the social, economic, and environmental sectors in sustainable development. At least, three central themes have been pursued by the Tangerang city government in the 2009–2013 RPJMD period as part of efforts to increase the carrying capacity of the environment: quality and carrying capacity of the environment; behaviour of industrial actors who are not environmentally friendly; and water quality.

The newly elected mayor at that time was very committed to sustainable development, and various efforts were made by the city to reduce the distance between sustainable development planning and its implementation. With this leadership commitment, in a relatively short period of time, significant changes occurred in the city. In 2009, the local government was able to
reduce river water pollution from the initial position of 12 parameters above Environmental Quality Standard (EQS), reduce groundwater pollution from 9 parameters above EQS, reduce air pollution and noise from 3 parameters above EQS, and increase the percentage of green open land in Tangerang to around 29.84% (5,427.58 ha) of the city area. Sustainable development has also had a significant impact on economic growth and improvement of the environment in Tangerang. The economic growth of the city has risen, with the highest growth, of 12.56%, in 2012, with the transportation and communication sectors contributing significantly to this economic growth.

Meanwhile, the environmental improvements delivered won appreciation from the central government. It was noted that the city of Tangerang received various awards from the central government every year during the 2009–2013 period; in 2012, Tangerang was even awarded the title of the cleanest metropolitan city in Indonesia.

RPJMD 2014–2018

The content related to sustainable development in the 2014–2018 RPJMD is mainly directed toward responding to a number of strategic issues in environmental affairs relating to the level of environmental pollution, solid waste management services, and sustainable urban spatial planning. In the RPJMD document, the alignment of the city government of Tangerang to the concept of sustainable development is clearly observed in the formulation of city mission five, namely, “realising sustainable, clean, healthy, and comfortable environmental development”. In explaining the mission, the awareness of the city government that environmental development cannot be separated from economic and social development is evident. Even more explicitly, awareness of integration between the three sectors is formulated in the objectives of the city government, namely, “strengthening and developing regional development oriented to the balance of environmental, social, and economic carrying capacity.”

The achievements that have been successfully realised by the Tangerang government during the 2013–2018 RPJMD period are quite significant. These achievements as associated with the MDG targets include:

1. The amount of carbon dioxide (CO₂) emission has been reduced by 22.14 tons but has not achieved the target set of 26.14 tons.
2. The proportion of households with sustainable access to urban-standard drinking water increased from 20% in 2010 to 30% and achieved nationally set targets.
3. The proportion of households with sustainable access to decent urban sanitation successfully increased from 98.45% in 2010 to 98.60%, meeting nationally set targets.
4. The proportion of urban slum households reduced from 1.25% in 2010 to 0.95%, achieving the nationally set target.
Factors that influence sustainable development

Leadership

Leaders play an important role in the success of local governments in realising SDGs. Using the authority possessed to manage resources, regional government leaders can design sustainable development planning documents, increase the capacity of resources, and establish relevant policies.

The commitment of regional leaders is thus very important. When leadership commitment is high, sustainable development will succeed. Conversely, if leadership commitment is low, then sustainable development will be difficult to realise. The results of this study reveal that the success of the city of Tangerang in the implementation of sustainable development is strongly influenced by the commitment of the city’s leadership. This commitment was very evident during the second period of leadership of Mayor Wahidin Halim, who was re-elected to lead the city for the period 2008–2013. His leadership commitment continued to his successor, who had served as deputy to the previous mayor and also showed his commitment to sustainable development. A statement from a government official also confirmed the strong commitment of these mayors to sustainable development in the last ten years:

Indeed, the most important thing is commitment, especially from the regional leaders. Praise to God, since the past mayor Mr. Wahidin, and now, Mr. Arif, the two mayors were very committed to the environment. Therefore, in the RPJMD, policies related to the environment are always included.

This commitment is not only seen in regional planning documents. The derived policies formulated and programs implemented also address compliance with the planning documents. The results of this study are consistent with the findings of other studies at different loci, such as research conducted by Milutinovic and Zivkovic (2014). All of the research reveals that sustainable development is influenced by the commitment of leaders at various levels of local government.

Public participation

Many experts believe that participatory democracy is a prerequisite for achieving sustainable development (Bass et al., 1997; Meadowcroft, 2004; Hawkins & Wang, 2012; Pimoljinda & Siriprasertchok, 2017; Kurniawan & Managi, 2018; Bednarska-Olejniczak et al., 2019). The participation of everyone in sustainable development is directed at maintaining a balance between human needs in improving lifestyle and welfare on the one hand and preserving natural resources and ecosystems on the other. Participation in sustainable development allows
people to inherit a healthy environment and to provide the resources needed by future generations (Petrauskiene & Predkelyte, 2017; Fu & Gang, 2019).

Sustainable development in Tangerang is also influenced by a high level of participation from the community. The city government can encourage participation not only from the general public but also from the business community, which has taken a role in reforesting and creating city parks. As stated by a government officer:

_Already many companies are involved in planting trees on the roadside and also making city parks. A kind of Corporate Social Responsibility. There are also many national level companies here [which participate in this program]._

Meanwhile, the general public is encouraged to pursue a healthy lifestyle. The city government initiated the growth of environmentally friendly residential areas through various innovative programs. The program uses terms that are very familiar to citizens and reflect emotional closeness, for example, by using the term ‘kampung’, meaning ‘village’. In the city of Tangerang, several regions have developed with names such as ‘Kampung Markisa’ (Passion Fruit Village), ‘Kampung Hijau’ (Green Village), and ‘Kampung Iklim’ (Climate Village). In addition to contributing to the supply of oxygen, these green villages have developed as tourist areas. As an officer stated:

_What is encouraged is community participation. We call this program ‘kampung hijau’ (Green Village). Green connotes clean and fresh. In the future, we will increase this to become a climate village. So that the hope is this village can also participate in reducing the impact of climate change._

_Religion_

There is an interesting strategy developed by the Tangerang city government that is rarely found in other regional or state governments. This approach uses religious values as a driver of sustainable development. Consequently, the development of religious communities in the city of Tangerang has also received significant attention in Tangerang RPJMD documents.

_Conclusions_

In the aftermath of the 1998 political reforms, the city of Tangerang has pursued a very progressive development program. Moving on from having the status of the worst city in the area in terms of its environmental sustainability, Tangerang is now transformed into a city that consistently receives central government awards for its implementation of sustainable development programs. The success of Tangerang reflects synergy in economic, social, and
environmental aspects of sustainable development. As a result, besides being able to maintain the carrying capacity of the environment, the development carried out in Tangerang also increases the city's economic growth and the quality of life of its people. The city of Tangerang has achieved various awards as a consequence of its achievements in sustainable development.

The successful implementation of Tangerang’s sustainable development is greatly influenced by factors of leadership, public participation, and religion, as adopted by the people of the city. In terms of leadership, two people who have served as the mayor of Tangerang over the last ten years have shown a very high commitment to sustainable development. Their commitment is shown in regional planning policies and their implementation. For the aspect of public participation, this research shows that the participation of the people of Tangerang in sustainable development is very high. Various innovations have been carried out by the regional government to encourage community participation, including among entrepreneurs. Meanwhile, in terms of religion, it is revealed that religion has played an important role as a motivator in the implementation of sustainable development.
REFERENCES


