The implementation of energy diplomacy by sub-state actors: approaches of Surabaya toward Kitakyushu

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Abstract. In many countries, energy diplomacy is usually carried out by the national government as the primary unit, through bilateral or multilateral agreements. However, it seems that Surabaya and Kitakyushu's cities have carried out intensive cooperation in the energy sector since the 2010s. This condition shows that the implementation of energy diplomacy has also been conducted at the sub-state level. Even though it focuses on the active role of the two cities, the meaning of energy diplomacy has not disappeared, but instead, it has expanded. This paper analyzes the City of Surabaya, Indonesia, approaches toward the City of Kitakyushu, Japan, in developing the energy sector, especially to strive for an energy-efficient city planning system in Surabaya. This paper's analytical framework is based on energy diplomacy and diplomacy by sub-national actors in international relations. The finding of this study is that the diplomacy carried out by the City of Surabaya toward Kitakyushu is classified as a practice of energy diplomacy. The diplomacy is carried out through a sister city approach.

1. Introduction

In general, activities related to energy diplomacy are under the authority of the national government. However, cooperation in the energy sector between the City of Surabaya and Kitakyushu shows that sub-state actors also play an essential role in energy diplomacy. The interaction between the two cities has been established since 2003 through cooperation in water quality management. In November 2012, a grand scheme for cooperation was formed under the environmental sister cities' framework, targeting waste management.

Since 2015, the cooperation programs are oriented toward the energy sector with the primary objective of forming an energy-efficient area and carrying out energy utilization through local potential [1]. The active role of the two cities in carrying out intense cooperation now has involved civil society. Residents are involved in counseling and training activities to increase education and awareness of the importance of energy. This activity includes the development program of an independent energy-efficient area in the Joint Credit Mechanism (JCM) [2]. The researchers also examined the possibility of energy saving in vital agencies such as regional drinking water companies and industrial estates. This research was conducted to
investigate and understand energy diplomacy development, primarily seen from the implementing actors and its implementation objectives. The process of implementing energy diplomacy is the main focus to illustrate how sub-state actors can ultimately become parties who actively carry out cross-border relations. The first assumption that arises is that each entity also has the capacity and capability to support and carry out energy diplomacy. Second, the goal of energy diplomacy has finally expanded to focus on the security of energy supply by the state and form a society that is concerned and aware of the importance of energy through the application of energy-saving and energy-efficiency attitudes.

2. Theoretical framework

2.1 Concept of energy diplomacy

The meaning of energy diplomacy has yet to have a clear definition. However, several energy diplomacy elements can be mapped according to the corridor of objectives and policy basis. Energy diplomacy is the use of foreign policy to secure access to energy supplies outside the country and promote cooperation in the energy sector. In this case, implementing energy diplomacy ensures national energy security while promoting business potential related to the energy sector [3].

Several countries carry out energy diplomacy practices bilaterally to reduce the potential for friction between existing parties. Bilateral relations emphasize the existence of general ties through embassies, consulates generals, and other diplomatic channels. However, if special issues are raised, the two countries will usually involve more actors with various involvement models. Thus, sub-state actors, in this case, the local government, also have the opportunity to participate in implementing energy diplomacy practices to achieve political economy goals in the energy sector, as an extension of the central government.

2.2 Diplomacy practices by sub-state actors

The involvement of constituent units, be they local, regional or subnational, in international activities is a form of paradiplomacy. Paradiplomacy is also often interpreted as the extension of subnational actors' authority or local governments' international relations activities. One way of this paradigm is the sister city. The establishment of a sister city is at least driven by two factors, namely: (1) internal factors, referring to the development of governmental decentralization which gives more authority to local governments; (2) external factors, referring to the increased integration between countries accompanied by the emergence of supranational and regional blocs [4]. This diplomacy is carried out in three mechanisms, namely local, internal, and external.

According to Laguerre, though sister cities are based on different purposes, one form may metamorphose into another form. Citing de Villiers, Laguerre argues that to understand the cyclical nature of sister cities, one can refer to three approaches, namely: associative, which emphasizes cultural exchange; reciprocal, which emphasizes cooperation in education and bureaucracy; and commercial exchange, which is ultimately oriented toward economic development [5]. It is not uncommon for city governments to only cover all three categories to achieve maximum cooperation goals. Sister Cities are broader as they involve all communities in a city, including civil society groups, the business community, and the academic community. Thus, the local government's implementation of diplomacy can indirectly support the central government's foreign policy by paying attention to answering challenges at the grassroots level by involving various elements of society.

2.3 Energy diplomacy by sub-state actors

The emergence of sub-state actors in diplomatic practices categorized as sister city activities is an attempt by the local government to establish foreign relations with city governments in other countries. In energy
diplomacy, sub-state actors appear as agents who actively discuss energy issues with external parties. Energy diplomacy by sub-state actors in sister cities is encouraged by the decentralization system that refers to regional autonomy. This method is evidenced by the existence of derivative laws up to provincial regulations. Besides, there is also an increasingly intensive integration at the international level, making it easier for these sub-state actors to establish foreign relations by targeting those who can accommodate each other's interests. The existence of coordination at the local, internal, and external levels can support energy diplomacy sustainability. Energy diplomacy carried out by sub-state actors within the scope of sister cities can be classified into the commercial exchange category due to the efforts to develop the energy sector to address civil society challenges. In connection with these objectives, the implementation of energy diplomacy by sub-state actors is also supported by wider communities such as business groups, intellectuals, and residents.

3. Result and discussion

3.1 The autonomy of Surabaya city as an energy diplomacy actor

In general, Indonesia's foreign policy in the energy sector aims to achieve energy security. This objective is stated in Law no. 30 of 2007 and translated into several ministries' strategic plans, such as the Ministry of Foreign Affairs and the Ministry of Energy and Mineral Resources. In this case, energy security refers to the efforts to slowly reduce fossil energy use and support the broader use of new and renewable energy. Until now, the implementation of energy diplomacy in the form of negotiations that have resulted in international cooperation in the energy sector has been under the coordination of the Ministry of Energy and Mineral Resources (KESDM) of the Republic of Indonesia as the leading institution that directly covers energy issues at the national level. Several agreements between Indonesia and other countries were signed by representatives of the Ministry of Energy and Mineral Resources, such as the Minister or Director-General of related fields. The national government's international energy cooperation agreements through the ministries were then forwarded to several sub-national actors following each region's conditions and needs. The policy basis for implementing international cooperation in the energy sector is Law Number 30 of 2007 Article 10, which clearly states that one of the main objectives of such cooperation is to improve the national economy. Furthermore, the Government Regulation (PP) Number 79 of 2014 concerning National Energy Policy (KEN) was issued, explaining that energy development priorities are carried out by prioritizing local energy resources.

The regional autonomy policy by the government of the Republic of Indonesia ultimately requires local/city governments to regulate government affairs, which fall under regional authority. More specifically, the involvement of the Surabaya City Government in supporting the implementation of energy diplomacy is based on the Regional Energy General Plan (RUED), which is a derivative of the National Energy General Plan (RUEN). RUED of East Java Province is stipulated through Regional Regulation (Peraturan Daerah/Perda) of East Java Province Number 6 of 2019. In this case, the Surabaya City Government, which is within the scope of the East Java Provincial Government, is given the authority to 1) map the current and future energy needs of the people of the City of Surabaya, which continue to increase from year to year due to the regional economic growth that continues to grow; 2) synchronize energy planning in a directed manner to balance the availability and demand for energy; 3) play an active role in promoting the use of non-fossil energy. In the Regional Regulation of the City of Surabaya Number 11 of 2008, energy is one of the 31 issues of government affairs that must be considered by local governments.
3.2 Energy diplomacy by the city of Surabaya toward Kitakyushu for the city development

The City of Surabaya itself has paid particular attention to carrying out development without neglecting the concept of environmental sustainability. In connection with these efforts to achieve sustainable development, the Surabaya City Government began to interact with the City Government of Kitakyushu as a pilot city in regulating city governance in international forums covering environmentally-friendly development. Thus, the City of Surabaya had the authority to create a memorandum of understanding and the City of Kitakyushu as a form of follow-up to the cooperation agreement that covered the energy sector. Two projects were the focus of the cooperation between the two cities, namely Smart Community, which was carried out under the supervision of the Japanese Ministry of Economy, Trade, and Industry (METI), and the Joint Crediting Mechanism (JCM), which was carried out under the Japanese Ministry of Environment. The aim of starting the Smart Community project was to instill energy-efficient behavior and also to develop a low-carbon-oriented city. This project was essential to do as the population growth in the city of Surabaya continued to increase. Besides, JCM implementation's goal was to seek low-carbon technology to reduce greenhouse gas production, especially for city buildings that did require high energy consumption.

To reach an agreement in the memorandum of understanding with the City Government of Kitakyushu, the City Government of Surabaya made several efforts to target diplomacy through local mechanisms, internal mechanisms, and external mechanisms [7]. At the local mechanism stage, sub-national actors, in this case, the city government or the Regional People's Representative Council (DPRD) as representatives of the community, initiated cooperation promotions. Usually, the government takes an approach to facilitate people (P to P) and business to business (B to B) contacts. In the local mechanism stage, cooperation between the City of Surabaya and the City of Kitakyushu in the energy sector was dominated by city government activities. Under the leadership of the Mayor of Surabaya, Tri Rismaharini, the project to build Smart Communities was focused on the Surabaya Industrial Estate Rungkut (SIER) area in the East Surabaya region.

Furthermore, at the internal mechanism stage, sub-national actors should consult and coordinate with the Ministry of Home Affairs and the Ministry of Foreign Affairs regarding the cooperation built with external parties. This internal mechanism stage emphasizes the conformity between policies that have been regulated by the national government and regulations at the regional level. In this case, the implementation of regional cooperation in the City of Surabaya cannot be separated from the national government's special rules regarding regional cooperation. The legal bases for implementing collaboration between the City of Surabaya and external parties were Law no. 37 of 1999 concerning foreign relations; Law no. 24 of 2000 concerning international treaties; Government Regulation No. 50 of 2007 regarding procedures for implementing regional cooperation; and Minister of Home Affairs Regulation No. 3 of 2008 concerning implementing regional government cooperation with foreign parties. Therefore, in building relationships with the City Government of Kitakyushu, the City Government of Surabaya actively provided reports and involved several ministries, especially the Ministry of Home Affairs and the Ministry of Foreign Affairs [8]. During the exploration of foreign relations, the Surabaya City Government submitted a cooperation proposal to the Ministry of Home Affairs to make a Letter of Intent (LoI), which would later be sent through Indonesia's Japanese ambassador. This LoI was signed by the City Government and the Provincial Government for approval by the DPRD. A new MoU could be drawn up to be submitted to the Minister of Home Affairs and the Minister of State Secretary once the city government had gotten this approval. After several negotiation stages, until the MoU was approved, the Minister of Home Affairs then submitted a full power mandate over the city government to the Ministry of Foreign Affairs. Thus, the MoU could be signed.
by the parties concerned for immediate implementation. The Ministry of Foreign Affairs also kept the MoU file as an archive.

The final stage was an external mechanism that relied on approach activities on diplomatic targets by the Ministry of Foreign Affairs and its staff, namely the Embassy and Consulate General, the Republic of Indonesia (PTRI). In this mechanism, the Ministry of Foreign Affairs' role was focused on providing legal and political considerations for the offer of cooperation between the Surabaya City Government and the City Government of Kitakyushu. At this stage, the Ministry of Foreign Affairs as the main actor in implementing state diplomacy activities helped the City Government approach diplomacy targets and control and evaluated cooperation implementation. In the context of the Surabaya City Government's energy diplomacy toward the City Government of Kitakyushu, the Ministry of Foreign Affairs had been directly involved in the approach process when it gave full power mandate to sign the MoU. Thus, there had been legal and political considerations, especially when looking at the urgency of the scope of cooperation in fields that became the Surabaya City Government's targets. Specifically, assistance to the Surabaya City Government was actively carried out by the ranks of PTRI, especially by the Republic of Indonesia's Embassy for Japan. One form of active participation that was carried out was a working visit to the City of Kitakyushu to assist the delegation of Surabaya City in the monitoring and evaluation activities for the sister city cooperation in March 2017 [9].

The concept of sister cities developed by the City of Surabaya and the City of Kitakyushu due to the implementation of energy diplomacy activities was carried out by implementing three diplomacy categories at once. Starting from the associative phase marked by friendly relations, namely the publication of the "Joint Statement on Strategic Environmental Partnership" in 2011 until the signing of the "Memorandum of Understanding (MoU) on Green Sister Cities" a year later [10]. Then, entering the associative phase, the two cities conducted a citizen exchange marked by a training and development program for human resources by involving Surabaya city administrative officials for a certain period. The cooperation in the form of sister cities between the two cities was finally in commercial exchange.

This phase of commercial exchange was characterized by cooperation based on economic development. This phase was the latest stage of collaboration between the two city governments. Cooperation in the energy sector reached the stage of developing development projects that had a clear orientation, namely the habituation of energy efficiency and low-carbon energy tools. As stated in article 1, the Green Sister Cities MoU's objective was "to promote and expand ... cooperation in the development of the two cities". The meaning of economic growth included in the discussion of energy diplomacy was represented in using the word "development" in the MoU of the cooperation between the two cities. It was the main objective of implementing the City of Surabaya's diplomatic approach toward the City of Kitakyushu. Besides, the development of clean energy was also explicitly stated to form a Low Carbon Society. Thus, this diplomacy was indirectly an effort to answer challenges related to environmental degradation in the City of Surabaya for a long time, mainly from energy use efficiency. In 2013, the Surabaya City Government promoted efforts to achieve efficiency and energy saving in industrial estates and several public and commercial buildings such as shopping malls. The project was then worked on together with the City Government of Kitakyushu by involving local Japanese businesses, namely Fuji Electric Co., Ltd and Nippon Steel & Sumkin Engineering Co., Ltd.

3.3. Public support for energy diplomacy by the city of Surabaya toward Kitakyushu

The implementation of energy diplomacy by the City of Surabaya toward the City of Kitakyushu was aimed at supporting the national energy goals stated in Indonesia's foreign policy in the energy sector. However,
on the other hand, energy diplomacy was also carried out to overcome problems at the local level's energy sector. In connection with the increasingly massive industrial activities in this city, Surabaya was faced with massive energy use, which triggered carbon problems from industry and household solid waste. Based on statistical records, the electricity consumption of Surabaya City, especially the southern part, was above most cities in East Java. The people living in the south of Surabaya's electricity consumption were recorded at 3.9 million MWh, far above other areas where the average figure was 1-2 million MWH [11]. Most of the electricity consumption came from the household and businesses, and hotels, followed by industry. Therefore, the Surabaya City government also involved local parties who could assist in the technical implementation of the cooperation resulting from implementing this energy diplomacy. The concept of sister cities promoted in energy diplomacy by the City of Surabaya involved various groups. They are the Surabaya City Government and the Regional People's Representative Council as policymakers, businesspeople, and civil society such as academics from universities, one of which was the Sepuluh Nopember Institute of Technology Surabaya.

The Surabaya City Government played an active role in establishing interactions with the City Government of Kitakyushu. An MoU between two cities resulted in a good relationship between the Surabaya City Government and the City Government of Kitakyushu since the 1990s. As previously explained, the signing of the MoU was not automatically carried out in a short time. Entering the 2000s, the Surabaya City Government began to take a more intensive approach through interactions developed by Ir. Tri Rismaharini. Rismaharini, at that time, was still active as Director of the Sanitation and Gardening Office, the Surabaya City Development Planning Agency, and then served as Mayor of Surabaya. During this approach period, promotional and negotiation efforts were made to select possible cooperation sectors that can be carried out together with the City of Kitakyushu. The legislature supported this active role during a working visit to the City of Kitakyushu. The DPRD delegation specifically intended to meet with the Mayor of Kitakyushu, Mr. Kenji Kitahashi, and the City Council of Kitakyushu, Mr. Sushaku Inoue. They visit the Hiagari Incineration Plant, a waste-based power plant with a power generation capacity of 6000 kW in Kitakyushu. At the meeting, the City Council of Surabaya expressed its appreciation for the role played by the City Government of Kitakyushu in helping the City of Surabaya to process garbage and waste into energy and strive to reduce pollution. This visit was a form of follow-up to initiate an environmentally friendly energy generation project by carrying out the "co-generation system" method using steamed gas, which started discussions in 2013.

Next is the support of academics and business circles. The Surabaya City Government directly appointed the Department of Civil Engineering, Sepuluh Nopember Institute of Technology (ITS) Surabaya, PT. SIER, PT. PIER, and also PT. PLN (Persero). In this case, several project activities carried out until 2014 were the observation, study, and mapping of energy use to reduce electricity consumption, energy-saving, and test the readiness to use compressed natural gas (CNG) as an energy source. In general, various local parties' involvement was aimed at advancing studies on export promotion and infrastructure and systems feasibility. The SEER area can be designed as the Kitakyushu Higashida Smart Community to identify strategies for developing low-carbon systems throughout the city. From this project, it can be seen that the Surabaya City Government had encouraged interactions between individuals and businesses in their approach to the City Government of Kitakyushu. Some of the activities that were carried out include studies and observations related to reducing carbon emissions through energy-saving attitudes in public facilities in 2013-2014 and testing the use of energy-saving technology in one of the shopping centers in Surabaya, namely Tunjungan Plaza. Until now, monitoring activities have continued to be carried out to implement energy-saving technology in a broader sector, namely industries that focus on the SIER area. In this case, all levels of
society had also participated in energy diplomacy to the City Government of Kitakyushu, starting from the ranks of regional executive and legislative government officials. They have a role in overseeing the diplomacy process toward national and local decisions. Academics involved in feasibility studies of environmentally friendly energy sources and technologies. Business and industry focus on the initiation of the application of energy-saving devices. Civil society as the primary target who will widely benefit from projects resulted from energy diplomacy.

4. Conclusion

The evidence of the implementation of cooperation in the energy sector by the City of Surabaya and the City of Kitakyushu showed that there was an active role of the City of Surabaya in carrying out direct energy diplomacy. Thus, sub-state actors, namely the city government, also have the opportunity to implement energy diplomacy, which has been previously assumed to belong to the central government. In this case, the Surabaya City Government participated in supporting the national energy goals stated in Indonesia's foreign policy in the energy sector. The Surabaya government carried out energy diplomacy under regional autonomy, stipulated in the corridors of regulations and laws established by the National Government and the Provincial Government. Besides, in the end, energy diplomacy carried out directly targeted local communities' energy needs so that residents can feel the direct impact of this diplomacy.

The Surabaya City Government implemented energy diplomacy in the Sister City concept. The process of implementing energy diplomacy does not directly refer to the commercial category whose orientation is economic development, but also through the exploration of relationships that fall into the associative and reciprocal categories in the form of educational exchanges and bureaucrats. The Surabaya City has three stages of diplomacy, namely a local mechanism to initiate and prepare project targets; internal mechanisms through coordination with provincial and national governments; and an external mechanism that ultimately directly involved the foreign ministry and state representatives in the diplomacy target, namely Kitakyushu. The implementation of this diplomacy was also strengthened by the support of various parties within the scope of the City of Surabaya, namely the legislative body, academics, and even business circles, with the whole community as the primary target who can enjoy the results of energy diplomacy by these sub-state actors.

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