International Journal of Politic, Public Policy and Environmental Issues
Vol. 1 No 2, 2021
EISSN: 2776-1096

Sister City Cooperation Model In Wetland Environmental Governance: Case Study In Banjarmasin, South of Kalimantan

Mahyuni[1], M Najeri Al Syahrin[2]
[1,2] Department of Government Science, Universitas Lambung Mangkurat, Indonesia
Email Correspondence: najeri.syahrin@ulm.ac.id

Article Info

Received	Accepted	Published
June 30, 2021	July 17, 2021	August 10, 2021

Keywords:

Cooperations Model
Sister City
Governance
Wetlands
Environment

ABSTRACT

This study analyses the framework model cooperation of the sister city that the Banjarmasin city government will carry out in wetland environmental governance (wetland governance). The model of sister city cooperation design that will be carried out is through the bottom-up model cooperation. This cooperation model focuses on the active participation of the community (citizen diplomacy) and community collaboration as transnational actors in managing the wetland environment (wetland governance) in Banjarmasin. Community participation (citizen diplomacy) and the active collaboration of the community with the city government as a transnational actor has become a fascinating new study in government and international relations, so it is crucial to study further.

The wetland environmental management model in this model is integrated wetland environmental management. So far, the integrated wetland environmental management planning methodology has paid little attention to aspects that integrate institutions, technology, and funding. This model also describes ideally that wetland environmental management accommodates various interests of development activities, such as agricultural development, industrial interests, and environmental carrying capacity (ecological demands). The operationalisation of the integrated wetland environment concept as a planning unit in development has been limited to rehabilitating and conserving soil and water. At the same time, the organisation is still ad hoc, and the intact institutions regarding the management of the wetland environment have not been patterned. For wetland environmental management to be carried out optimally, it must involve all stakeholders and plan in an integrated, comprehensive, sustainable, and environmentally friendly manner with wetlands as a management unit. The bottom-up sister, the city cooperation model, was then made based on these problems. This collaboration is an effort to involve all parties, especially the community, so that every decision taken in planning is a collective decision and encourages mutual involvement and commitment to implement it.

1. INTRODUCTION

Banjarmasin or South Kalimantan is specifically a wetland or peatland area. The majority of the area is inundated either seasonally (short term) or permanently (long term). In addition, the typical Banjarmasin area is increasingly filled with vegetation potential so that it has different textures, physical and chemical

properties from other regions in Indonesia (Tavinayati et al., 2016). Wetlands are productive areas with biological and non-biological diversity that have diverse potential so that the use and good management of wetlands will become a very potential life support system (National Committee for Wetland Ecosystem Management, 2004). The extent of wetlands that have been used as agricultural land and settlements makes this land can be damaged if it is not managed correctly and in an integrated manner. The use of wetlands must be carefully planned and designed with the principle of land use with a long-term perspective (Hardjoamidjojo & Setiawan 2001). Wetlands are susceptible to changes made by humans because they have an essential role in human life and other wildlife. The function of wetlands is a source of drinking water and habitat for various creatures but has ecological functions such as flood control, prevention of seawater intrusion, erosion, pollution, and global climate control (Rahmi et al., 2015). Thus, wetland environmental governance (wetland governance) is indispensable in the management of wetlands.

So far, the problem is that the wetland environmental management system often overlaps and conflicts between one stakeholder and other stakeholders, and the community does not maximise *involvement* in the management of the wetland environment. So far, planning, management, implementation, monitoring, and evaluation of wetland environmental governance are often carried out separately (National Committee for Wetland Ecosystem Management, 2004). Wetland governance properly and comprehensively needs to involve all parties who have duties and responsibilities directly related to wetlands.

There are several other weaknesses and shortcomings related to the institutional system of wetland management, mainly in the lack of experts, scientists, and planners in natural resources, specifically in the regions who can provide input in district/city spatial planning—for example, preparing a database on natural resources and their problems. In addition, there is still a lack of understanding of stakeholders about integrated strategies and plans for comprehensive wetland resource management (National Committee for Wetland Ecosystem Management, 2004).

The transformation of global issues at the local, national, regional, and international levels such as global climate change, cultural globalisation, development policies, population growth, scarcity of clean water, energy, and fuel has put pressure on sustainability and sustainability wetlands Indonesia. This is because wetlands are pretty vulnerable to environmental changes. On the other hand, it can also be seen that global changes due to globalisation have caused a shift in the implementation of state and government relations. Advances in communication technology have also encouraged interdependence for countries and groups within countries, including local governments (Buckley et al., 2015). This phenomenon makes local governments interested in collaborating with local governments in other countries to benefit their regions. The form of bilateral cooperation currently being carried out is the sister city cooperation model (city partners). A Sister city is a form of cooperation that involves cities in one country with cities in other countries to increase the sense of brotherhood between cities and provide benefits to both cities (Ogawa, 2012). Sister city cooperation is here to seek regional development not only in the field of economic profit but also able to solve environmental problems (Mukti, 2013). The establishment of sister city cooperation also shows that each local government cannot always rely on its domestic potential to meet its needs but can be fulfilled by other countries through a cooperation scheme (Fitri & Rani, 2013).

Wetland environmental management is dynamic and rapidly transforms following technological developments, new case experiences, socio-economic, political factors, and international influences (globalisation). Therefore, it is indispensable to have a collaborative framework between city governments to synergise with each other. Therefore, a new framework is needed to arrange and manage the integrated wetland environment (wetland governance) through sister city cooperation. In the sister city collaboration, wetland environmental management will involve various international experts who have experience overcoming similar problems in their countries. In addition, the sister city cooperation also allows the transfer of technology in the handling of wetland environmental governance (wetland governance), so it is hoped that through the cooperation mechanism, the problems of wetland environmental management can be carried out correctly.

Seeing the many benefits of implementing sister city cooperation and the urgency of the problem of wetland environmental governance (wetland governance), which is currently still not well resolved, we as researchers are interested in conducting a study on the sister city cooperation model in wetland environmental management (wetland governance) in the city of Banjarmasin. Wetland governance issues have cost much money and took a long time to solve, but there have been no effective results until now. Ironically, on the other hand, if you look closely, many benefits can be obtained through sister city cooperation. From this, it becomes essential to study how a good sister city cooperation model can be implemented so that the problems of wetland environmental governance can be adequately resolved.

Based on the description above, it appears that there have been problems in governance and strengthening the role of local governments in the context of foreign relations. Related to this, the objectives of this research can be formulated as follows:

1. Applying the concept of settlement of wetland environmental governance (wetland governance) through a sister city cooperation scheme. With sister city cooperation, it is hoped that the strengths of each city that cooperates can be synergised to deal with dynamics and problems that are very complicated when handled individually.

2. Formulating a sister city cooperation model in wetland environmental governance (wetland governance). In Kalimantan, especially in South Kalimantan, this model of foreign cooperation is still not very much in demand. However, the benefits and effectiveness of this cooperation are very profitable. The Banjarmasin city government also has explicitly not made this sister city collaboration one of the priority programs in the management of wetland environmental governance (wetland governance). Among several regions that have collaborated with foreign parties under the sister city scheme are Bandung, Yogyakarta, Semarang, Surabaya, Jakarta, and Surakarta (Suprayitno & Sandi, 2002).

3. Implementing the concept of a sister city cooperation model in wetland environmental management to be proposed to the Banjarmasin city government or the South Kalimantan provincial government.

The benefit of this research is that with the concept of solving wetland environmental governance (wetland governance) through a sister city cooperation scheme, the collaborating parties can progress with the transfer of knowledge, information, and technology. One city can learn from other cities so that, in the end, it will advance the city for the welfare of the community. In the academic aspect, specifically related to government science, this study aims to develop a bottom-up sister city cooperation model with active community involvement (citizen diplomacy) as transnational actors who play a role in cross-country city cooperation. This study will provide additional new references about the concept of sister city collaboration between governments, citizen diplomacy, and the role of transnational government actors carried out by the community and the city government of Banjarmasin in the global arena. This research also contains an explanation of the steps that will be taken in carrying out the process of cross-country cooperation. These steps are expected to assist academics and researchers in reviewing the pattern of relations between local governments, especially in resolving wetland environmental governance. In practice, this research can help provincial and city governments, NGOs, and community groups formulate and implement a sister city cooperation framework for wetland environmental governance (wetland governance) to benefit the whole community.

2. METHOD

This sister, city cooperation model research, was developed using qualitative research methods. This method uses literature studies and interview methods to examine and understand how a good sister city cooperation model applies to wetland environmental governance in Banjarmasin. This qualitative research explores and understands wetland environmental governance (wetland governance) and provides a model for practical sister city cooperation in such governance. The exciting thing from this research is creating a model and platform for the sister city cooperation in managing the wetland environment in Banjarmasin with the active involvement of the community (citizen diplomacy). Through this collaboration, it is hoped that it will provide benefits and benefits for the people of the city of Banjarmasin.

The method used in determining primary data sources or sources is purposive sampling through selected sources. To facilitate the determination of informants in the field, the researchers targeted the following vital informants:

1. Banjarmasin city government (General Section, Development Section, Welfare Section) and the Environment Agency.
2. Regional Disaster Management Agency (BPBD), Bappeda, and Banjarmasin City Environmental Service.

Data collection was carried out using two mutually supportive methods to sharpen data analysis on creating a sister city cooperation model.

3. FINDINGS AND DISCUSSION

Joseph Nye and Robert Keohane suggested the importance of international cooperation in the complex interdependence theory of transnational actor interactions. The concept of the relationship between the role of the state and society was born along with the emergence of the era of globalisation, which makes countries

aware that it is no longer the leading solution in achieving national goals or interests but can also be achieved through public diplomacy.

This means that the state's role can be biased by the smallest actors from the sub-state, namely the community or the city government. The significant role of these sub-state actors is an essential factor that is now changing interactions between countries. Joseph Nye and Robert Keohane also stated that the increasing relationship between people, organisations and groups has led to the ease of communication of transnational relations and resolving sub-state problems in a global scope. This interaction will eventually lead to many effects. In addition, based on Nye and Keohane's complex interdependence theory, mutually developing international cooperation is also one of the more effective ways to achieve state goals and interests (Nye & Keohane, 2003).

Nye and Keohane explain the role of transnational actors on a broader dimension. They identified an expansion of actors from roles that the government had only carried out, now can also be carried out by the city government through the role of the community in it. In understanding the management of the wetland environment (wetland governance), the interaction of transnational actors is carried out with the Banjarmasin City Government or government (G) and the Banjarmasin community or society (S) on the hand other. This pattern explains that community groups (S) exert influence and pressure on the government (G) in global interactions and cooperation. With the support and pressure from the community (S), local governments seek to establish direct transnational relations with the delegation of power from the central government (state) to local governments (city). These transnational relationships are also in individual relationships or community groups with significant consequences in the problem-solving process (Nye & Keohane, 2003). It can be concluded that the internationalisation of wetland environmental governance (wetland governance) can create interactions between actors, state and non-state, that cross-national territorial boundaries (Odoh & David, 2014).

Globalisation has touched various fields of life in all areas of state government according to the reform of the economic and government systems, including the bureaucracy, thus enabling economic interactions between regions and between nations to take place more efficiently. The key to successful development is competitiveness, and the key to competitiveness is the efficiency of the service process and the quality, accuracy, and certainty of public policies. The key to successful development is competitiveness, and the key to competitiveness is service process efficiency, quality, and public policy certainty (Ministry of Environment and Forestry of the Republic of Indonesia, 2018).

Indonesia has about 40.5 million hectares of wetlands, classified as a country with the most extensive wetlands in Asia after China. Wetlands have an essential meaning because they are a life support system, become a source of water, food sources, maintain rich biodiversity, and function as global climate controllers. Government realising the function of these wetlands, it is necessary to make appropriate and integrated efforts to manage wetlands. The birth of Law no. 22 of 1999 concerning Regional Government, in which the national government system originally centralised became more decentralised, creating a new paradigm in wiser management and use of wetlands. In addition, awareness of the role of wetlands related to climate change, carbon sequestration, prevention of carbon emissions in the air adds to the need to raise new wetlands issues about climate change that has not been thought of until now. These changes have caused the regional wetland management strategy to be incomplete and require revision to produce a new strategy according to the current national natural resource management pattern and includes new emerging issues. Wetland management regional policies and strategies analysed in this study are expected to be documents that can guide ineffective and synergistic wetland management between every stakeholder both at the centre and in the regions. Thus, it is possible to create harmony in management policies related to wetlands by every central and regional stakeholder. The wealth of our wetlands can be beneficial for the welfare of present and future generations of society (National Committee for Wetland Ecosystem Management, 2004).

In this effort, government regulations must have a concept to describe corrective actions for wetland environmental governance (wetland governance). The second fundamental change in the Government Regulation on Ecosystem Protection and Management is the sharpening of aspects of preventing damage and restoring peat ecosystems regulated in more detail. In the last ten years, public awareness of the importance of wetlands has increased, and the increasing world attention to climate change. The Government of Republic Indonesia in 2009 (through UNFCCC COP15 in Copenhagen) has taken a positive step by submitting a voluntary commitment to reduce emissions by 26%-41% by 2020. As a follow-up, the Indonesian government issued a moratorium policy on primary forests and peatlands through Instruction President No. 10/2011, which was later extended through Presidential Instruction No. 6/2013, then extended again through INPRES No. 8/2015. Furthermore, in September 2014, the government has issued Government Regulation no. 71/2014 on Protection and Management of Peat Ecosystems to improve peatland and wetland governance in Indonesia (Wetlands International Indonesia, 2015).

From the various understandings above, it can be concluded that good wetland governance is both in-process and in results. All elements in government can move synergistically, do not conflict with each other, gain support from the people, and are free from movements and disasters made by humans and industry that can hinder the process and pace of development and the welfare of the community.

The cooperation model *sister city* or twin cities is a cooperation model between global cities based on similarities in things such as disaster problems, geography, economy, social structure, culture, and other things that the two cities have in common. (Al Syahrin et al., 2020). This study plans to create a research model collaborative *sister city* in Banjarmasin City, South Kalimantan Province. Therefore, as the research implementer, we plan to make this city problem a cooperation medium *sister city* with the assumption that in the future, this problem can be overcome by the Banjarmasin City Government. In this study, we also involve people living in wetland areas to participate in researching *sister cities.*

3.1 Analysis of Community Involvement in Management of the Wetland Environment in Banjarmasin

The research implementation of the cooperation model *sister city* in the city of Banjarmasin has been carried out by contacting several related parties such as the Banjarmasin city government and the community as actors in the implementation of the *sister city* and conducting field surveys related to areas that will be used as the implementation of the sister city cooperation in Banjarmasin. Implementing the cooperation research *sister city* began by contacting the Banjarmasin city government at the Banjarmasin City Hall, which was carried out on September 29, 2020. The Banjarmasin city government explained that there was no specific implementation process for a cooperation sister city inland environmental management in Banjarmasin. This is because the Banjarmasin city government itself experiences several obstacles. The obstacle experienced by the Banjarmasin city government is that the first problem of funding cooperation *sister city* by the government city of Banjarmasin has not been realised. Second, it is not yet integrated between units with other units, so that there is no good communication for implementing the planning model cooperation *this sister city*.

These two obstacles are why the Banjarmasin city government has not implemented a sister city cooperation model specifically in wetland environmental management to date. Information obtained from the Banjarmasin city government to implement a sister cooperation city to address the wetland environmental problem has also been discussed. The recommendation given by the Banjarmasin city government for this research is to visit the PUPR of the city of Banjarmasin, where this service is an agency that handles environmental problems of wetlands in the city of Banjarmasin. The following recommendation is to BAPPEDA Banjarmasin in regional infrastructure, where this field plays a role in handling the wetland environment in Banjarmasin. This point becomes the data report that supports the research of the model cooperation sister city in Banjarmasin City.

Further research was carried out by conducting interviews with the Banjarmasin City Environmental Service, represented by Mrs Dwi Naniek, the Head of the Environmental Management Division of the Banjarmasin City Environmental Service. In his presentation, he stated that the Institute for Global Environmental Strategies (IGES) based in Japan praised the success of the City of Banjarmasin, South Kalimantan, in reducing plastic bag waste. Program Manager for Sustainable Cities from IGES Shom Teoh, while visiting Banjarmasin City Hall, said that his party came to see firsthand the progress of the City of Banjarmasin in terms of handling plastic bag waste. Banjarmasin is Indonesia's representative in ASEAN in the sector of success in reducing plastic bag waste, so it is very advanced in protecting the environment (Ratnawati et al., 2020).

Efforts in designing cooperation sister city should be carried out with the active involvement of the community. This is because the community will later become an essential component in the technical implementation of cooperation. Community involvement efforts in structuring the wetland environment in Banjarmasin can involve the following activities and activities. To prevent the increase in the earth's temperature due to greenhouse gas emissions in the South Kalimantan region, the Environment Service (DLH) seeks to provide socialisation to various regions. The socialisation activity that brought together several *Lurah* and Community Groups Caring for the Environment in Banjarmasin was facilitated by the Banjarmasin City DLH. Socialisation continues to be intensified to understand the adverse effects of climate change and adapt and mitigate them by implementing the Climate Village program (*Proklim*). The provision of socialisation to 11 *Lurah* in Banjarmasin aims to provide the Lurah to guide people who want to form their villages into climate villages. The realisation of this program has been seen, namely the formation of a Climate Village in Complex H Idris Sultan Adam, Sungai Miai Village, and Green Village in Sungai Bilu Village, Banjarmasin (Kalsel Pos, 2019).

In addition to the climate house program, environmental activists specifically involve the community through innovation activities in a garbage collection program for residents who want to exchange their waste at the waste bank. The innovation was carried out by the Main Waste Bank "Baiman" Banjarmasin. The waste bank can also serve communities that the waste bank has not served through garbage collection. The scraps will be recycled by the creative team of the central waste bank so that they can be reused. Banjarmasin now has 275 waste banks that can handle more than 200 tons of waste per month. In 2017, the leading waste bank Banjarmasin became Indonesia's six best waste banks (Pikiran Rakyat, 2019).

The following is an overview of the aspects of community involvement in managing the wetland environment:

Figure 2. Community Involvement Program in Handling the Banjarmasin Wetland Environment (Source; Processed by the Author).

From the data above, it can be seen that the implementation of community involvement is quite active. Community participation in environmental management is essential and needs to be improved. This increased community participation will ease the government's efforts in structuring the wetland environment. To increase community participation, the government, through the relevant agencies, can further increase socialisation and actively involve the community in all forms of activities. Community participation is a technical process to provide wider opportunities and authority to the community to solve various problems together. This division of authority is carried out based on the level of community participation in these activities. Besides that, community participation also aims to find better solutions to problems in a community by opening more opportunities for the community to contribute to implementing activities that run more effectively, efficiently, and sustainably (Subhan, 2012).

To realise the wetland environmental management programs, the government must be more active in socialising the community. For this reason, the government can foster and train community leaders. Furthermore, community leaders can directly conduct socialisation through various meetings/activities, such as recitation (*yasinan*) and *gotong royong*. *Madihin* activities as a typical Banjarese traditional art can also be carried out to attract public interest to participate in outreach activities on environmental management. In addition, the government can also give awards to those who excel through competitions such as village cleaning competitions, river management, wetland management, and others (Subhan, 2012).

The form of community participation in environmental management is also only in the form of consultation participation and participation driven by incentives or assistance. The meaning of environmental management is indirectly seen from the views of the people living on the banks of the river and is reflected in their daily lives; dan rancangan model pengelolaan lingkungan lahan basah berbasis masyarakat disusun berdasarkan prinsip pendekatan bottom up dengan tujuan untuk mendorong partisipasi masyarakat Banjarmasin sendiri dan menjadikan mereka sebagai partner dalam dalam pengelolaan lingkungan.

3.2 Bottom-Up Model of Sister City Cooperation with Active Community Involvement in Management of Wetland Environments In Banjarmasin

Banjarmasin City is the capital of South Kalimantan Province. One solution to increase the potential of the city of Banjarmasin is to form a network of inter-city government cooperation between countries. Not only to increase the potential of the City of Banjarmasin but the cooperation *sister city* can also be used to solve the main problems of the city of Banjarmasin, namely the problem of environmental management, specifically the wetland environment. One form of network cooperation is the partnership *sister city*. This cooperation is carried out with cities at home and abroad, generally with cities. Based on the results of interviews with the collaboration section of the Banjarmasin City Government, so far, there has been cooperation *sister city* that has been carried out either in tackling wetland environmental problems.

Therefore, in this study, there will be an effort to initiate cooperation, *sister city* especially in managing the Banjarmasin wetland environment. This cooperation and partnership activity focuses on developing diplomatic, friendly relations and benefits for both parties, especially in solving city problems. Efforts to overcome environmental problems that only rely on development carried out by the city government have proven ineffective in overcoming or reducing Banjarmasin wetlands' environmental problems. Therefore, an integrated and comprehensive wetland environmental control model is needed concerning non-structural development efforts, especially partnerships (cooperation) involving all domestic and foreign stakeholders.

This study proposes that the government involve all parties in jointly implementing a wetland environmental control system with active community involvement. The active involvement of the community is reflected in the bottom-up sister city cooperation model. In this model, sister city cooperation is carried out between cities and countries in handling the wetland environment by involving the community in the formulation and implementation of agreements. These activities include river management, peat drainage, environmental management of wetlands, mapping of environmental disaster-prone areas per RT per Kelurahan, relocation of riverbank settlements, improvement of spatial planning and reforestation, reforestation of watershed erosion, determination of river boundaries, delivery of public information and strengthening information and waste management (Gusti, 2013).

The following is a complete description of the *wetland governance model*:

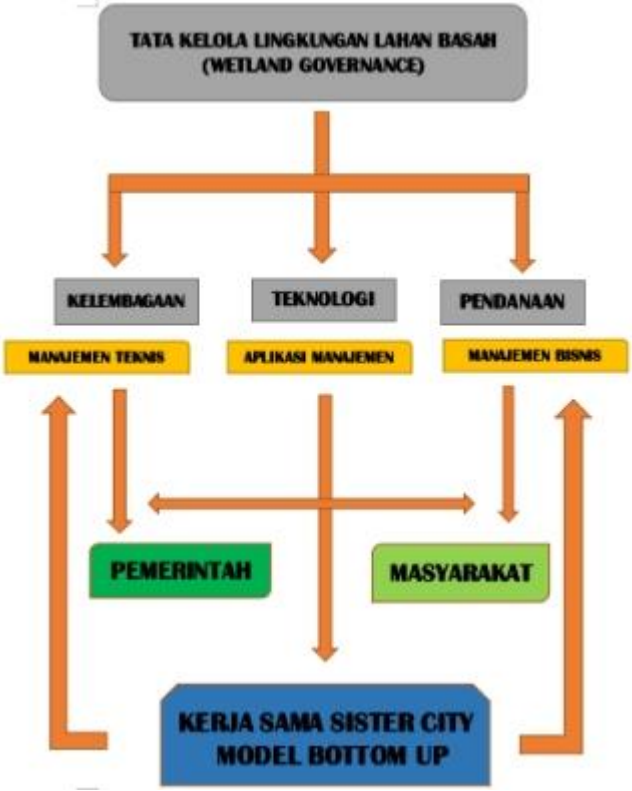

Figure 3: Bottom-up sister city cooperation model in handling the Banjarmasin wetland environment

The wetland environmental management model in this model is integrated wetland environmental management. This model implies that elements or aspects related to the environment can be managed optimally so that there is a positive synergy that will improve the environmental performance of the wetland in producing output. This model also describes ideally that wetland environmental management accommodates various interests of development activities, such as tourism and agricultural development, industrial interests, and environmental carrying capacity (ecological demands). So far, the integrated wetland environmental management planning methodology has paid little attention to aspects that integrate institutions, technology, and funding. Developments in settlements, agriculture, plantations, industry, exploitation of natural resources in the form of mining, and forest exploitation have caused a decrease in the hydrological conditions of the environment. The importance of the position of the wetland environment as an integrated management unit is a logical consequence of maintaining the sustainable use of forest, soil, and

water resources. Inaccurate planning can lead to environmental degradation, resulting in bare land, land/land becoming critical, and affecting water absorption. In the end, the degradation process can cause significant floods in the rainy season, and river discharge becomes very low in the dry season. It can cause forest fires, accelerated sedimentation in reservoirs and irrigation networks that cause exists, and a decrease in water quality (Directorate of Forestry and Water Resources Conservation. 2008).

Based on the model analysis above, planning for the wetland environment cannot be carried out only through a sectoral approach. However, it is necessary to have linkages between sectors representing each wetland sub-environment, specifically between the community and the government. Wetland environmental management should focus on attention by adhering to the principle of '*one environment one management.'* The inter-sectoral linkages include APBD planning, sector/program/project planning, and coordination of all relevant agencies or institutions in managing the wetland environment. The wetland environment as part of the overall environmental area is a *flowing resource*, where the use of the wetland environment in an area will affect the surrounding area. Based on this, integrated planning in the management of the wetland environment is needed by involving all relevant sectors, all stakeholders, and the area within the wetland environment.

Wetland environmental management synergised with sister city international cooperation with a bottom-up approach (community involvement) is a comprehensive effort in wetland governance. Specifically, *the bottom-up sister city model* is:

1. This model begins with identifying wetland environmental problems in each area of Banjarmasin and a comprehensive study of the strategy for solving the wetland environment according to the community and environmental perspective urban planning experts.
2. The activities initiated by the City Government will encourage the community to participate in the policy implementation actively.
3. This model views the policy process as negotiation and consensus-building.
4. This model is implemented collectively, involves elements of governance, and relies on persuasion.

The main arguments of this model are:

1. Performance (performance, outcome) and effectiveness
2. Social virtue (local wisdom)
3. Substantial from micro-regions to more expansive areas (community to government)
4. Tend to be trend-oriented, responsive, and short term
5. Bringing local micro substance
6. Main sources of approach: community, private sector, and NGOs

This bottom-up sister, the city collaboration model, is planning for international cooperation in managing the wetland environment where the community is more involved in providing ideas from the initial initiation of activities and implementing the evaluation. In this case, the Banjarmasin city government only acts as a development facilitator. In general, this bottom-up sister city cooperation model has several advantages, including the community being able to provide ideas for developing urban planning programs actively. In addition, the community can also find out in detail the implementation of wetland environmental management from the start of the activity to evaluation. However, this cooperation model also has several weaknesses. Namely, the role of the government is not so optimal and only becomes a facilitator in the implementation of cooperation. In addition, there are often misunderstandings between the community and the government due to differences in views on many matters (Weibleder & Lackner, 2013).

In short, the government's approach in the sister city cooperation effort in overcoming the wetland environment presupposes that the Banjarmasin city government is an institution *agenda setting* for policymaking in handling the wetland environment by encouraging the involvement of other actors such as urban communities to be actively involved in doing work. The same as the management of the wetland environment. In the current era of globalisation and autonomy, cooperation is urgently needed to address regional problems that are often neglected and cannot be adequately resolved (Weibleder & Lackner, 2013).

The keywords for the success of this collaboration are responsibilities, decisions, and actual actions when disasters occur and how evaluations are carried out. Everything is borne jointly by the city government (*municipality*) and residents (*residents*). The implementation of this cooperation model lies in the city government's efforts and its people (Pribadi, 2007). The city government acts as a *forecaster* to monitor areas prone to the wetland environment and provide guidance to residents. The city government should also cooperate with volunteers and NGOs in assisting in the form of funds and workforce to the community. The community is also strived to be trained in preventive and preventive measures in critical disaster situations to provide the best response when an emergency occurs. Preparedness, resilience, and active community participation are essential in dealing with wetland environmental problems (BNPB, 2016).

This cooperation model bottom-up sister city is a city development planning based on participatory development. This collaboration bottom-up sister city is an effort to involve all parties, especially the community so that every decision taken in planning is a collective decision and encourages mutual involvement and commitment to implement it. Although there are some weaknesses in this model, it requires a lot of time and effort in planning, but it is hoped that the results can be more effective in tackling the wetland environment.

The Banjarmasin City Government should try to carry out participatory development planning to explore the aspirations that develop in the community through deliberation at the *RT*, *RW*, *kelurahan*, sub-district, and city levels. Community participatory development planning in this international cooperation is a pattern of approach that involves the community's active role as objects and as subjects of development. The nuances developed in development planning and solving urban problems are truly *bottom-up approaches.*). Nevertheless, development planning and solving urban problems involving all elements and components of society is a positive step that deserves to be observed and developed continuously at the level of discourse of thought and at the level of its implementation in society, especially those at the time related to international fora. At the same time, this approach is new in solving the environmental problems of Banjarmasin wetlands which have tended to be ineffective and centralised (Wilson, 2015).

4. CONCLUSION

The City Government may not respond to all aspects of environmental management efforts if it does not coordinate well with various parties. Wetland environmental management efforts can be carried out by the government if assisted by the community, will certainly obtain optimal results. Therefore, research on the sister city cooperation model related to wetland environmental governance with community involvement is a compelling new way to solve wetland environmental problems in Banjarmasin.

This study describes the bottom-up sister city model in handling the Banjarmasin wetland environment. In the bottom-up cooperation model, the community is asked to formulate and implement the cooperation. In principle, an integrated wetland environmental management policy is fundamental to reduce and deal with natural resource problems in terms of quality and quantity. Therefore, this policy is an integrated part of environmental policy based on academic and technical data, various environmental conditions in several regions, and economic and social developments as a whole where regional developments are. With the variety of conditions, the various and specific solutions are also. This diversity must be taken into account in planning and decision-making to ensure that the sustainable protection of the wetland environment is within a framework.

Thus, wetland environmental management is an activity with a biophysical dimension (e.g., erosion control, prevention and management of critical lands, and conservative agricultural management). Besides, institutional dimensions such as incentives and regulations are related to the economic and environmental fields. Also, a social dimension is more directed at local socio-cultural conditions. So that in planning the integrated wetland environmental development model, environmental management activities/technology must be considered a unit of sustainable development planning.

The operationalisation of the integrated wetland environment concept as a planning unit in development has been limited to rehabilitating and conserving soil and water. At the same time, the organisation is still ad hoc, and the intact institutions regarding the management of the wetland environment have not been patterned. For wetland environmental management to be carried out optimally, it must involve all stakeholders and plan in an integrated, comprehensive, sustainable, and environmentally friendly manner with wetlands as a management unit.

The bottom-up sister, the city cooperation model, was then made based on these problems. This collaboration is an effort to involve all parties, especially the community, so that every decision taken in planning is a collective decision and encourages mutual involvement and commitment to implement it. Although there are some weaknesses in this model, it requires a lot of time and effort in planning, but it is hoped that the results can be more effective in tackling the wetland environment.

The essence of the success of this collaboration is the responsibility, decisions, and concrete actions on the management of the wetland environment that are carried out. Everything is borne jointly by the city government (municipality) and residents (residents). The implementation of this cooperation model lies in the efforts of the city government and its people. The city government acts as a provider in monitoring priority areas for structuring the wetland environment and providing guidance to residents. The city government should also cooperate with volunteers and NGOs in assisting in the form of funds and human resources to the community.

REFERENCES

Al Syahrin, MN et al. (2019). Sister City Bottom-Up Collaborative Model Plan As a Major Flooding Mitigation in Samarinda. Environmental Science, Society, and Technology, WESTECH 2018, 1-12.

Al Syahrin, MN et al. (2020). Bottom-Up Model Analysis of Community Involvement in the Sister City Cooperation for Flood Mitigation in East Kalimantan. *Revista UNISCI.* No 53. pp. 143-153.

Aris Poniman & Nurwadjedi & Suwahyuono. (2006). Penyediaan Informasi Spasial Lahan Basah Untuk Mendukung Pembangunan Nasional. *Forum Geografi*. Vol. 20.

Balanthine, J (April 2014). How Sister City Partnerships Can Play A New Role In A Global Economy, Cities Today, Washington.

Baritono, R. (2017). Eleanor Roosevelt at the United Nations: "Diplomacy from Below" and the Search for a New Transatlantic Dialogue, *European Journal of American studies*, no 1, vol 12.

Boersma, RG (2015). The Success of Sister City Partnerships Between Dutch Municipalities and A Municipality In A CEEC: Formalized Between 1989-2000. Master Thesis in Public Administration. Track Public Management.

Buckley, PH & Takahashi, A. & Anderson, A. (2015). The Role of Sister Cities' Staff Exchanges in Developing "Learning Cities": Exploring Necessary and Sufficient Conditions in Social Capital Development Utilizing Proportional Odds Modeling. *Environment Res Public Health*, no 12, vol 12.

Dickson, M (2010). Citizen Diplomacy In President Umaru Musa Yar'adua's Nigeria, 2007-2009: An Assessment. International Journal of Politics and Good Governance, no 1, vol 1-3.

Direktorat Kehutanan dan Konservasi Sumberdaya Air. 2008. Kajian Model Pengelolaan Daerah Aliran Sungai (Das) Terpadu. Tersedia di https://www.bappenas.go.id/files/1213/5053/3289/17kajian-model-pengelolaan-daerah-aliran-sungai-das-terpadu 20081123002641 16.pdf. Diakses pada 1 Oktober 2020.

Domai, T. (2011). Sound Governance. Universitas Brawijaya Press. Malang.

Fitri, HR & Rani, F. (2013). Implementasi Kerjasama Sister City : Studi Kasus Sister City Bandung – Braunschweig (Tahun 2000 – 2013). *Transnasional*, no. 1, vol. 5.

Hardjoamidjojo, S. & Setiawan, BI. (2001). Pengembangan dan Pengelolaan Air di Lahan Basah. *Buletin Keteknikan Pertanian*. Vol 15. No(1), pp, 40 47.

Indraswari, FV (2015). Kerjasama Indonesia-Korea Selatan Dalam Pengembangan Desa Melalui Sistem Saemaul Undong (Studi Kasus Kerjasama Lintas Batas Daerah Istimewa Yogyakarta-Gyeongsangbuk-do). Ilmiah Transformasi Global, no. 2, vol 2.

Kalsel Pos, 2019. DLH gencarkan Proklim di Banjarmasin. Tersedia di https://kalselpos.com/2019/03/28/dlh-gencarkan-proklim-di-banjarmasin/. Diakses pada 1 Oktober 2020.

Kalsel Pos. 2019. DLH ingin Luncurkan Kawasan "Kampung Iklim". 28 Maret 2019. Selengkapnya di https://kalselpos.com/2019/03/28/dlh-ingin-luncurkan-kawasan-kampung-iklim/. Diakses pada 1 Oktober 2020.

Kaltenbrunner, A. (2010). Not All Paths Lead To Rome: Analysing The Network of Sister Cities. Barcelona Media Foundation. Barcelona.

Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia. (2018). *Corrective Action Tata Kelola Gambut Di Indonesia Menuju Ekosistem Gambut Berkelanjutan.* Direktorat Jenderal Pengendalian Pencemaran dan Kerusakan Lingkungan Direktorat Pengendalian Kerusakan Gambut. Jakarta.

Komite Nasional Pengelolaan Ekosistem Lahan Basah. (2004) *Strategi Nasional dan Rencana Aksi Pengelolaan Lahan Basah Indonesia.* Kementerian Lingkungan Hidup. Jakarta.

Mukti, TA (2013). Paradiplomasi : Kerja Sama Oleh Pemda Di Indonesia. The Phinisi Press. Yogyakarta.

Najiyati, S. & Muslihat, L. & Suryadiputra, INN. (2005). *Panduan Pengelolaan Lahan Gambut Untuk Pertanian Berkelanjutan. Proyek Climate Change, Forest and Peatlands in Indonesia*. Wetlands International – Indonesia Programme dan Wildlife Habitat Canada. Bogor.

Nye, JS & Keohane, R. (2003). Transnational Relations And World Politics, International Organization, no. 3, vol. 3.

Odoh, SIN & David, ME (2014). Reflection on the Theory and Practice of Citizen Diplomacy in the Conduct of Nigeria's Foreign Policy. IOSR Journal Of Humanities And Social Science, Volume 19, Issue 10.

Ogawa, A. (2012). Sister City As A Preservation Strategy. Thesis in Historic Preservation Graduate School of Architecture, Planning, and Preservation. Columbia University.

Pemerintah Kota Bandung (2018). Tahapan pelaksanaan kerja sama sister city menurut arsip Tersedia di http://kerjasama.bandung.go.id/luar-negeri/sister-city. Diakses 10 Mei 2020.

Petrenko, A & Schlingloff, H. (Eds.) (2013). Eighth Workshop on Model-Based Testing.

Pikiran Rakyat. 2019. Tingkatkan Kesadaran Lingkungan, Bank Sampah di Banjarmasin Lakukan Inovasi Jemput Sedekah Sampah. Tersedia di https://www.pikiran-rakyat.com/nasional/pr-01325865/tingkatkan-kesadaran-lingkungan-bank-sampah-di-banjarmasin-lakukan-inovasi-jemput-sedekah-sampah?page=2]. Diakses pada 1 Oktober 2020.

Pramono, S. (2009). Faktor Pendorong Melakukan Kerjasama Sister Province Jawa Tengah-Queensland (Australia) 1991-2009. Eksplanasi, No 8, vol. 4.

Pribadi, S. (2007). Peneliti Bidang Tsunami Modelling dan Forecasting. Tersedia di http://www.beritaiptek.com/zberita-beritaiptek-2007-04-04-Belajar-Bagaimana-Jepang-Memerangi-Banjir.shtml. Diakses 21 Mei 2018.

Rahmi, et all (2015) Lahan Basah Terpadu di Desa Mulia Sari Kecamatan Tanjung Lago, Kabupaten Banyuasin. *Jurnal Ilmu Pertanian Indonesia (JIPI).* Vol. 20 (3), pp. 201 207.

Shaw, MN (2003). International Law. Cambridge University Press, Cambridge.

Sinaga, O. (2010). Otonomi Daerah Dan Kebijakan Publik: Implementasi Kerjasama Internasional. Lepsindo. Bandung.

Subhan,et al. 2012. Partisipasi Masyarakat Terhadap Penanggulangan Banjir Di Kota Banjarmasin. Enviro Scientiae 8 (2012), pp. 135-145.

Sunarko, BS & Yuniati, S. (2016). Kerjasama Sister City: Sebuah Upaya Untuk Meningkatkan Industri Pariwisata Di Banyuwangi. Fakultas Ilmu Sosial dan Politik Universitas Jember. Tersedia di <http://repository.unej.ac.id/handle/123456789/79341> Di akses 8 September 2020.

Supriyanto & Sandi ATT (2002). Pengembangan Potensi Provinsi Daerah Istimewa Yogyakarta Melalui Kerjasama Sister Province. Mimbar Hukum, no 4, vol 41.

Tachjan, H. (2006). *Implementasi Kebijakan Publik*. Aipi. Bandung.

Tavinayati et al. (2016). Perlindungan Indikasi Geografis bagi Produsen Hasil Pertanian Lahan Basah di Provinsi Kalimantan Selatan. *Lambung Mangkurat Law Journal*. Vol 1 Issue 1, pp. 155-179.

Thontowi, J (2009). Kewenangan Daerah Dalam Melaksanakan Hubungan Luar Negeri (Studi Kasus di Propinsi Jawa Barat dan DIY). Hukum, no. 2, vol. 16.

Triana. (2012). *Pertemuan Regional Asia Konvensi Ramsar November 2011 dan Persiapan Conference of The Parties (COP) XI* Juni 2012 di Rumania. Warta Konservasi Lahan Basah Wetlands International-Indonesia. 20 (1): 8 9.

Weibleder, S & Lackner, H. (2014). Top-Down and Bottom-Up Approach for Model.

Wilson, J (2015). Top-down and bottom-up. NCLB Charter School and The Public School Principalship.