



WASTE MANAGEMENT MODEL OF RIVER BEACH COMMUNITIES IN BANJARMASIN CITY

Muhammad Riduansyah Syafari*, M. Nur Imam Ridwan, Anjani

Faculty of Social and Political Sciences, Lambung Mangkurat University, Banjarmasin City, South Kalimantan, Indonesia

Submit : 08-30-2022

Accepted : 11-01-2022

***Corresponding author**

Abstract

The model for handling riverbank community waste in Banjarmasin City is based on the number of dead and near-dead rivers, one of the main causes of which is that generally the riverbank community throws household waste and other waste into the river, in addition to the garbage sent from the Martapura river. The results show that the model developed by the Banjarmasin City Environment Service is a competition model that is included in the Maharagu Program (maintaining) the cleanliness, beauty and sustainability of river life, both from social and economic aspects. Each river is appointed by 1 river stakeholder who is responsible for motivating and coordinating riverbank communities in their area. In its implementation, the competition for cleanliness and beauty of the river environment and its surroundings is able to increase the active participation and awareness of some riverbank communities in the area who have participated in the competition activities. The initial obstacle faced was the low participation and awareness of the community along the river. After the competition, most of the people no longer disposed of their household waste and defecated into the river, but instead collected it in a certain place, then transported it by a garbage officer who was paid based on community self-help.

Keywords: Waste Management, Riverside Communities, Maharagu.

INTRODUCTION

Banjarmasin City with the vision of Barasih Wan Nyaman or Banjarmasin Baiman. The vision of the City of Banjarmasin with the reality of the waste produced by the residents of the City of Banjarmasin and the treatment of the waste produced is still not in accordance with the expectations of the achievement of this vision. This can be seen from the large number of household waste or other waste that is dumped by residents not to the Temporary Disposal Site (TPS) but to the river. The Banjarmasin City Environmental Service stated that there were 608 tons of waste produced by the city's residents, and 30% did not go to the Final Disposal Site (TPA), part of which was thrown into the river by residents. (<https://mediaindonesia.com/nusantara/461309/ratusan-ton-sampah-penuhi-sungai-di-kalsel>, 30/12/2021).

The fact is that there are still many city residents who do not throw their garbage into the TPS and some still throw it into the river. Data published in the online media Medcom states that rivers in South Kalimantan Province are covered with hundreds of tons of garbage. Rivers in Banjarmasin City are also the same, there are still many city residents who throw household waste into the river, especially city residents whose houses are above the river or adjacent to the river. (<https://www.medcom.id/nasional/daerah/dN6XBGqk-sungai-di-kalsel-tertutup-ratusan-ton-sampah>, 30/12/2021).

This reality is in line with the big flood that occurred in some areas in South Kalimantan Province in 2020 ago, where most of the Banjarmasin City area was also inundated by the flood. The surprising phenomenon is the submergence of large parts of the city of Banjarmasin, which cannot be separated from the simultaneous occurrence of high tides in sea water that meets floodwaters from the Martapura river which is connected to Banjar Regency. The phenomenon is that the deep tide, when it enters the time of its ebb and flow, cannot fully return to the city river and return to the sea, this is actually caused by many city rivers that are not functioning properly, because they are blocked by the buildings above them and are clogged. Due to the large amount of garbage blocking river channels, and the aftermath of the great flood, the already very large volume of municipal waste produced by the city's residents per day, is quite an astonishing phenomenon, the city's waste has doubled after the flood. (<https://regional.kompas.com/read/2021/02/03/15112901/volume-sampah-di-banjarmasin-meningkat-dua-kali-lipat-pascabanjir?page=all>, 03/02/2021).

There are more than 2 programs that have been decided by the Banjarmasin City Environmental Service, especially those generated by households. However, the phenomenon of municipal waste that is produced and disposed of to the TPS for subsequent to the TPA is not done by all residents, especially residents who live far from the TPS and who live on the banks of rivers or near rivers. The old program that is still running, and actually plays a big role in reducing the habit of residents throwing garbage under their houses, behind their houses, and into rivers is to encourage RT/RW to organize self-help waste transportation from RT/RW to TPS by officers who are paid independently by the residents. in housing complexes and RT/RW. Based on the observations of the research team from November 2021-February 2022, some of these programs have continued to run, but some have stopped, such as self-supporting waste transportation in RT 17-15, East Antasan Kecil Village, North Banjarmasin District, which no longer exists. According to residents in RT 15, Ibu I and Ibu U, "there is no transportation anymore, they are generally disposed of by themselves to the TPS. (interview November 2021).

The self-help waste disposal program that is not well organized at the RT/RW level is the main problem in the death of self-help waste transportation at the RT/RW level. DLH

Banjarmasin also implements a program that aims to foster community participation in maintaining the cleanliness of the city's river environment, namely a river cleanliness competition in the form of the Maharagu River Program. This program is still running until now, based on Yustika and Syafari's 2021 research, this program is quite effective in improving river cleanliness and in encouraging active community participation in maintaining the cleanliness of the city's river environment. This condition is due to the completion of the competition program, the activities of maintaining and maintaining the cleanliness of the river environment are no longer continuing, and quite dependent on the existence of programs from the Government and river stakeholders. Then, in response to the lack of TPS in Banjarmasin City, DLH starting at the end of 2020 began to run a new program for handling municipal waste in the form of the Surung Sintak program. This program was implemented because in addition to the insufficient number of polling stations, the effect of closing a number of polling stations in several areas in Banjarmasin City continues to decrease. (<https://berita.banjarmasinkota.go.id/detailpost/obati-kekhawatiran-warga-dlh-berikan-solusi-pelayanan-sampah-surung-sintak>, 20/11/2020).

Penelitian terkait model penanganan atau pun pengelolaan sampah kota ada beberapa penelitian terdahulu yang relevan. Pertama, Pemodelan Sistem Normatif Pengelolaan Sampah Kota, Oleh Niluh Putu Hariastuti, Jurusan Teknik Industri, ITATS Surabaya, dalam Jurnal IPTEK Vol 17 No.1 Mei 2013. Kedua, Model Pengelolaan Sampah Permukiman Di Kelurahan Tunjung Sekar Kota Malang, oleh Sudiro, Arief Setyawan, Lukman Nulhakim, dalam jurnal PLANO MADANI Volume 7 Nomor 1 April 2018, 106 - 117 © 2018 P ISSN 2301-878X- E ISSN 2541-2973. Ketiga, Model Inovasi Pengelolaan Sampah Rumah Tangga oleh Hayat, Hasan Zayadi, dalam jurnal Ju-Ke, Volume 2, Nomor 2, Desember 2018, hlm. 131 – 141. Keempat, Model Pengelolaan Sampah Perkotaan (Survey Pada Pengelolaan Persampahan Kota Bogor) oleh Samsuri, Lucky Hikmat Maulana, dalam Jurnal Visionida, Volume 5 Nomor 2 Desember 2019. Kelima, Model Pengelolaan Sampah Berbasis Masyarakat di Kota Denpasar oleh Made Armadi, Wayan Suarna, Made Sudarma, Made Sudiana Mahendra, Nyoman Sudipa, dalam jurnal ECOTROPHIC Volume 14 Nomor 2 Tahun 2020, 131-142 p-ISSN:1907-5626, e-ISSN: 2503-3395,

Penelitian ini berbeda dilihat dari aspek fokusnya, yang, menegaskan fokus penelitian pada model penanganan sampah kota pada masyarakat bantaran sungai. Hal ini didasarkan kepada fakta, masih banyaknya warga bantaran sungai dan rumah tinggalnya berdekatan dengan sungai masih membuang sampah rumah tangganya ke sungai. Permasalahan yang dianalisis adalah “Bagaimana model penanganan Sampah Kota masyarakat bantaran sungai di Kota Banjarmasin)?”

RESEARCH METHODS

The research method used is a qualitative approach with descriptive and exploratory types. This is done in order to dig deeper and more complete data for the needs of model analysis in producing an appropriate formulation of the city waste management model (study of waste management for the community along the riverbanks in the city of Banjarmasin). The summary of this research method is presented in the following research flow chart.

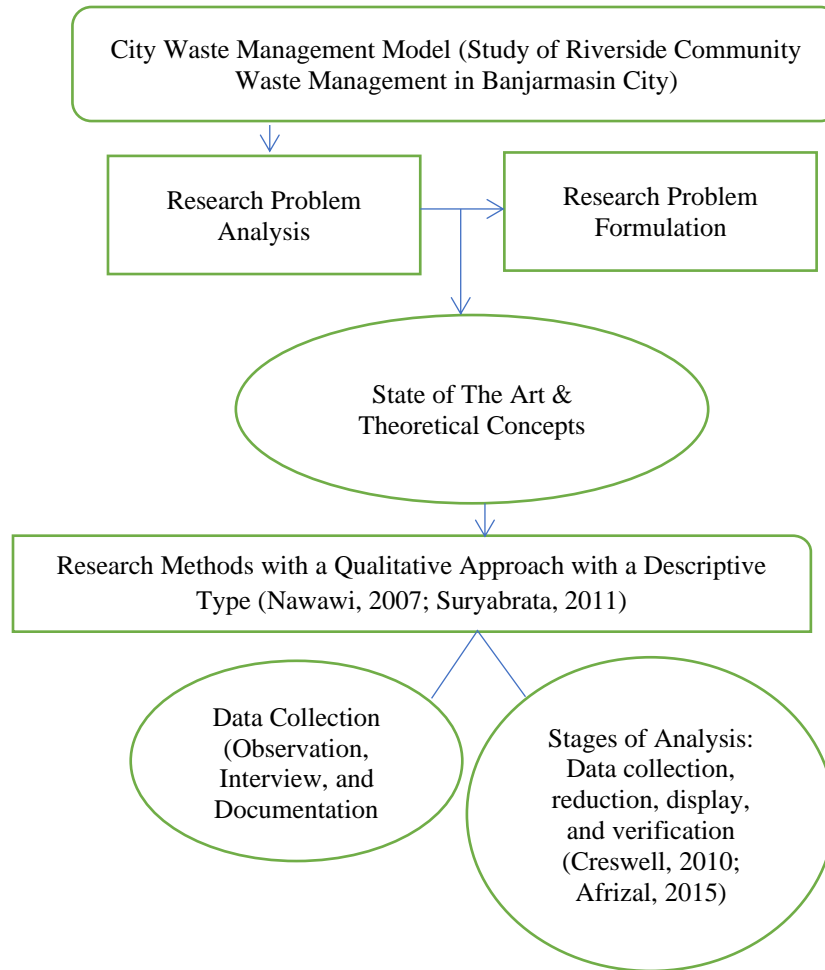


Figure 1. Research flow

RESULTS AND DISCUSSION

Maharagu Program Profile (Maintaining) Rivers

The Maharagu Sungai program is a program created by the Environmental Service for an action competition to clean the river together with as many community members as possible. Then maharagu” (maintaining) rivers in their respective areas.

This program has been planned and implemented since April 3, 2016, the initial activity was also attended by the Governor of South Kalimantan, Sahbirin Noor. This first program was then implemented in five sub-districts with a total of 15 sub-districts in Banjarmasin City. The purpose of the program is to foster community participation so that they are involved in revitalizing rivers, loving rivers, and reviving river functions. The trick is to form a group of river stakeholders in their environment, then jointly take real action in an effort to save the river so as to provide lessons for the community in general. Other aspects are expected to be useful in socio-economic aspects. The target of the Maharagu Sungai program is the formation of a river care community that is fostered by river stakeholders throughout the river area in Banjarmasin with the output of increasing the number of rivers being maintained and increasing public awareness in maintaining rivers.

Model of Waste Management for Riverside Community in Banjarmasin City

The efforts of the Banjarmasin City Government through the Environmental Service (DLH) have designed a program that can make small and medium rivers maintain a sustainable basis. The program which was designed and started to be implemented since 2017 under the name Maharagu Sungai Program has been running for 5 years. The program's aim to increase public awareness and participation in maintaining the cleanliness and sustainability of river life is quite effective, this is in line with the results of Yustika and Syafari's 2021 research on the effectiveness of the Maharagu River Program in Banjarmasin City.

The Riverbank Community Waste Management Model has been included in the Maharagu (Maintaining) River Program of the Banjarmasin City DLH. The Maharagu river program aims to grow and increase community participation to take an active role in maintaining and reviving rivers that are almost dead or those that are still being used by the community. This program is carried out through competitions to clean up garbage in the river, both household waste, and shipping waste, as well as wild plants that cover the river. In addition, eliminating the habit of people along the river to defecate into the river, both home toilets and WC (floating latrines), as well as socio-economic and environmental aspects.

Program Forms and Models

The Maharagu Sungai program is based on the Village, the determination of the location of the village is carried out by the district. The Maharagu program (maintaining) rivers with a race model, is carried out in 3 stages. Each stage is carried out an assessment of changes in river conditions and community participation in activities to maintain, clean and make the river function normally. The value of each stage is accumulated into the average value of the entire stage as an assessment that determines the status of the champion. Each river is appointed by 1 river stakeholder (leader/coordinator of maharagu (maintaining) activities to be sustainable.

River stakeholders are selected from community leaders who are judged from the following is the data table for the Maharagu (maintaining) river winners from 2018-2020.

Table 1. Winners of the Maharagu River Competition in 2018-2020

No.	Year	Name of River	Village	District
1	2018	Sungai Tatah Belayung	Tanjung Pagar	Banjarmasin Selatan
2	2019	Sungai Biuku	Sungai Andai	Banjarmasin Utara
3	2020	Sungai Ampera	Basirih	Banjarmasin Barat

Source: Banjarmasin City Environmental Service, 2022

The rivers that won the 1-3 winners were the Langkar and Baiman rivers in Sungai Miai Village, the Banyuur River in Basirih Village, as well as the Outer Jagabaya and Outer Jagabaya Rivers in South Kuin Village.

The existence of this program is based on the results of an interview with Mr. Marzuki, SE., MA as the Head of the Sanitation and Waste Management Division of the Banjarmasin City Environmental Service, saying that:

“This program is a program of the Mayor of Banjarmasin, the Maharagu Program is taken from the Banjar language which means to maintain and the river is the main object. The purpose and benefit of this program is to make the rivers in Banjarmasin City function like rivers in which there is flowing, clean water, and can provide benefits to the surrounding environment” (Interview, 9 June 2022)

Similar to what was said by the three parties from the Kelurahan whose area won the Maharagu Sungai event in 2018, 2019, and 2020. They revealed that the Maharagu Sungai Program is a program that was presented directly by the Mayor of Banjarmasin to raise public awareness in maintaining rivers and streams. restore the function and condition of the river. Based on the results of an interview with Mrs. Aina, SKM as the head of Tanjung Pagar whose area won the Maharagu River activity in 2018, said that:

"The Maharagu River Program is an activity which means that the rivers in the city of Banjarmasin must be protected (maintained), so that the rivers are free from pollution at least free from garbage and the rivers are directly guarded by the people who live on the banks of the river." river" (Interview, 9 June 2022).

The Sungai Andai Sub-district also expressed the same thing that the Maharagu Sungai Program is based on the vision and mission of the Mayor, namely Barasih Wan Comfortable. Therefore, this activity is presented to realize the City of Banjarmasin. Based on the results of an interview with Mr. Akhmad Fakh Rudy, S.Sos., MA as the village head of Sungai Andai whose area won the Maharagu Sungai event in 2019, said that:

"The Maharagu Sungai program is a good program, presented through the Banjarmasin City government based on the vision and mission of the Mayor, namely Barasih Wan Comfortable, the goal is to restore Banjarmasin City as a worthy City of a Thousand Rivers. So, this activity is carried out by realizing the condition of rivers, river maharagu, even other activities related to rivers" (Interview, August 16, 2022).

The same thing was also expressed by the Basirih Village as the winner of the Maharagu Sungai event in 2020, who said that this program is a program of the vision and mission of the Mayor of Banjarmasin who wants to revitalize the river. Based on the results of an interview with Mr. Syamsuri, S.Sos, as the village head of Basirih whose area won the Maharagu River activity in 2020, said that:

"The Maharagu Sungai program was made in accordance with the vision and mission of the Mayor who wanted to revitalize the river, so that it would restore the function of the river as in previous years, that the river is the lifeblood and then as a necessary environment. In addition, looking at previous years where the river was clean there were water habitats, such as law fish and other fish which are now almost non-existent" (Interview, 15 June 2022).

In the City of Banjarmasin, the Maharagu River Program was implemented from 2016 until now, the program in the form of a competition aims to build public awareness of the cleanliness of the river and restore the function and condition of the river as usual. Every year this program is attended by 30 rivers, each of which is sent by the kelurahan.

Villages with rivers that have participated in the Maharagu competition (maintaining) rivers based on the observations of the research team from June to June. in July 2022 rivers that were almost dead have been able to function again. The function that is seen from the social aspect is that it functions well for bathing and washing places for people around the riverbanks, and the natural environment around the river is cleaner than before, although the scattered garbage of residents' snacks is still thrown carelessly, and there are still a small number of residents who throw away household garbage. stairs to the river and also the presence of garbage

from the Besar and Martapura rivers that enter when the tide is deep. However, in general the condition of the river environment is cleaner than before.

Most residents are also willing to no longer throw household waste into the river and defecate into the river, residents voluntarily wrap it in plastic then place it in a temporary shelter that has been agreed upon in their respective RT, then transported by the garbage officer at the RT level. with a transportation time of 1 or 2 once a week, depending on the agreement with the volunteers who are paid from community contributions, the amount of which is between Rp. 10,000 to 20,000 per month per resident's house. As stated by Mr. Andri and Mr. Samsul, 2 stakeholders of the Outer Jagabaya and Jagabaya Rivers who stated: "the river is much cleaner and functions normally again for bathing and washing residents around the river, can also be passed by motorized and manual boats" (interview, 5 July 2022).

The same thing was stated by the Stakeholders of the Tungku river which consists of the Langkar river and the Baiman river, Mr. Hasan and Ms. Rofiqoh who stated:

"The furnace river (Baiman river and Langkar river) is almost dead. fish/food traders" (interview 10 July 2022). Likewise from the Banyuur River, a representative of the Banyuur River Stakeholder, Eva, "the Banyuur river is much cleaner and more beautiful, and the young women and youth here are also mostly active participants" (Interview, 5 July 2022).

Based on the results of observations and interviews of the research team with river stakeholders, it shows that the Maharagu program (maintaining) rivers in Banjarmasin City is quite effective. the function of the river from a social and economic perspective has been able to function again, although not as in the past where the population of the community along the riverbank and its surroundings is not as large as it is now. This also shows that the number of human populations is very influential on the cleanliness and sustainability of the river as a social and economic function of the community around the river. This is in line with the view of Steers (1985) that the ability of citizens to adapt to environmental changes also affects the effectiveness of a program of activities by the organization. This was also found in the study of the effectiveness of the Fishery Product Processing Group (Syafari, et al, 2021).

According to the stakeholders above, the problems of the Maharagu (maintaining) program were difficulties in encouraging all residents to participate in maintaining and maintaining the river. However, now the majority of residents around the riverbanks are getting used to not throwing household waste into the river, and are willing to collect it in front of their house or at a temporary collection point, and pay a fee for transportation of waste between Rp 10,000 to Rp. IDR 20,000 per month. The amount depends on the socio-economic conditions of the community, residents of the complex whose area is adjacent to the river pay between Rp. 15,000 to Rp. IDR 20,000 (month).

The increasing participation of residents in participating in the Maharagu (maintaining) rivers illustrates the increasing participation of community members in participating in maintaining and maintaining the cleanliness and sustainability of river functions from social and economic aspects. The existence of support and facilitators from the government of Banjarmasin City on an ongoing basis is very important, so that the sustainability of the Maharagu program (maintaining) medium-sized rivers that are almost dead can be revitalized in a sustainable manner. This is in line with the views of Tjokroamidjoyo (1991), Syafari (2021), White (1982), that the existence of a leader is important to be in front and in the midst of society, not only behind the desk, so that they can always motivate and supervise the running of programs.

community participation-based development program. The existence of a leader as an agent of change is very influential in the dynamic development process towards the success of development programs, both at the center and in the regions. Likewise in empowering the community (Suharto, 2017, Sumodiningrat, et al, 2015, Usman, 2012).

Based on the results of the research and discussion above, the riverbank community waste management model which is part of the Maharagu (maintaining) river program is considered quite successful. The aim of the program is to increase the awareness of the community around the riverbanks in participating in maintaining the cleanliness of the river environment and in reviving the function of the river, both from the social and economic aspects.

CONCLUSSION

The model for handling community waste along the river through the Maharagu (Maintaining) river program with a competition model is quite successful in increasing community participation and public awareness in being actively involved in Maharagu (maintaining) the cleanliness and sustainability of river functions, both from social and economic aspects. Obstacles Maintenance of the cleanliness of the river environment from residents who originally threw a lot of household waste into the river has decreased a lot, as well as toilets (Floating latrines) are greatly reduced, even some of those whose house toilets go to the river are no longer there.

REFERENCE

Book

- Afrizal. (2015). *Metode Penelitian Kualitatif Sebuah Upaya Mendukung Penggunaan Penelitian Kualitatif Dalam Berbagai Disiplin Ilmu* (cetakan ke-3). Jakarta: PT RajaGrafindo Persada.
- Bryant, Coralie, Louise G. White. (1982). *Manajemen Pembangunan Untuk Negara Berkembang*. (terjemah Rusyanto L). Penerbit: LP3ES: Jakarta.
- Creswell, J. W. (2010). *Research Design ; Pendekatan Kualitatif, Kuantitatif, dan Mixed*. Terjemahan Achmad Fawaid (edisi ke-3). Yogyakarta: Pustaka Pelajar.
- Nawawi, H. (2007). *Metode Penelitian Bidang Sosial* (cetakan ke-12). Yogyakarta: Gadjah Mada University Press.
- Suharto, Edi. (2017). *Membangun masyarakat memberdayakan rakyat*. Bandung : Refika Aditama.
- Sumodiningrat, Gunawan, Ari Wulandari. (2015). *Menuju ekonomi berdikari : Pemberdayaan UMKM dengan Konsep OPOP-OVOP-OVOC*. Yogyakarta: Media Pressindo.
- Suryabrata, S. (2011). *Metodologi Penelitian* (cetakan ke-22). Jakarta: PT RajaGrafindo Persada.
- Usman, Sunyoto.(2012). *Pembangunan dan Pemberdayaan Masyarakat*. Yogyakarta : Pustaka Pelajar.

Journal

- Annisya (2017). Partisipasi Masyarakat Terhadap Pembangunan Infrastruktur Di Desa Sungai Pinang Kecamatan Hulu Kuantan Kabupaten Kuantan Singingi Provinsi Riau, JOM FISIP Vol. 4 No. 2, 2017.
- Armadi, Made, Wayan Suarna, Made Sudarma, Made Sudiana Mahendra, Nyoman Sudipa. (2020). *Model Pengelolaan Sampah Berbasis Masyarakat Di Kota Denpasar*. Jurnal

ECOTROPIC Volume 14 Nomor 2 Tahun 2020, 131-142 p-ISSN:1907-5626,e-ISSN: 2503-3395. Sumber:

<https://ojs.unud.ac.id/index.php/ECOTROPIC/article/download/65143/37669&ved=2ahUKEwjXNLmt4H2AhWT8HMBHcPwDlGQFnoECDUQAQ&usg=AOvVaw0iAF6quXNHLqvoeWChEKq8>.

Hariastuti, Niluh Putu. (2013). *Pemodelan Sistem Normatif Pengelolaan Sampah Kota*. Jurnal IPTEK Vol 17 No.1. Penerbit: Jurusan Teknik Industri, ITATS Surabaya. Sumber: <https://jurnal.itats.ac.id/wp-content/uploads/2013/06/niluh.hal61-72.pdf&ved>.

Hayat, Hasan Zayadi. (2018). *Model Inovasi Pengelolaan Sampah Rumah Tangga*. Jurnal Ju-Ke, Volume 2, Nomor 2, Desember 2018, hlm. 131 – 141. Sumber: <https://media.neliti.com/media/publications/269680-model-inovasi-pengelolaan-sampah-rumah-t-208d562c.pdf>.

Samsuri, Lucky Hikmat Maulana. (2019). *Model Pengelolaan Sampah Perkotaan (Survey Pada Pengelolaan Persampahan Kota Bogor)*. Jurnal Visionida, Volume 5 Nomor 2 Desember 2019.

<https://ojs.unida.ac.id/Jvs/article/view/2206/pdf&ved=2ahUKEwjXqNLmt4H2AhWT8HMBHcPwDlGQFnoECAUQAQ&usg=AOvVaw27IDUnL1TkDGZQNU52JC>.

Sudiro, Arief Setyawan, Lukman Nulhakim. (2018). *Model Pengelolaan Sampah Permukiman Di Kelurahan Tunjung Sekar Kota Malang*. jurnal PLANO MADANI Volume 7 Nomor 1 April 2018, hal. 106 - 117 © 2018 P ISSN 2301-878X- E ISSN 2541-2973. Sumber: <https://journal.uin-alauddin.ac.id/index.php/planomadani/article/view/4894&ved=2ahUKEwjXqNLmt4H2AhWT8HMBHcPwDlGQFnoECBAQAQ&usg=AOvVaw3jcgYr-kBe8h80jQbaSTyB>.

Online Source

Aninymous. (2021). *Ratusan Ton Sampah Penuhi Sungai di Kal-Sel*. Sumber: <https://mediaindonesia.com/nusantara/461309/ratusan-ton-sampah-penuhi-sungai-di-kalsel>, 30/12/2021.

Aninymous. (2021). *Sungai di Kal-Sel Tertutup Ratusan Ton Sampah*. Sumber: <https://www.medcom.id/nasional/daerah/dN6XBGqk-sungai-di-kalsel-tertutup-ratusan-ton-sampah>, 30/12/2021.

Aninymous. (2021). *Volume Sampah di Banjarmasin Meningkatkan Dua Kali Lipat Pasca Banjir*. Sumber: <https://regional.kompas.com/read/2021/02/03/15112901/volume-sampah-di-banjarmasin-meningkat-dua-kali-lipat-pascabanjir?page=all>, 03/02/2021.

Aninymous. (2020). *Obati Kekhawatiran Warga DLH Berikan Solusi Pelayanan Sampah Surung Sintak*. Sumber: (<https://berita.banjarmasinkota.go.id/detailpost/obati-kekhawatiran-warga-dlh-berikan-solusi-pelayanan-sampah-surung-sintak>)