ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

Household Waste Management in Bandung City (Case Study of RW 14 Tamansari Village and RW 08 Cikutra Village)

A. Hadian Pratama Hamzah [1], Nurhasanah [2], Erisa Kurniati [3]

[1] *Departmenet Of Environmental Studies Universitas Terbuka, Jl. Cabe Raya, Pondok Cabe, Pamulang Tangerang Selatan 154181*

[2] *Departmenet Of Environmental Studies Universitas Terbuka, Jl. Cabe Raya, Pondok Cabe, Pamulang Tangerang Selatan 154183*

[3] *Faculty of Teacher Training and Education Universitas Batanghari*

Corresponding Author: A. Hadian Pratama Hamzah, Email: hadian@ecampus.ut.ac.id

History: Received 06/03/2022 | Revised 17/03/2022 | Accepted 02/04/2022 | Published 30/04/2022

Abstract. This research's aim is to find out the composition and characteristic of the waste in Bandung, to know the number of recycle waste, to know how the waste management, to know the advantages of waste management, and the factors that cause the waste management succeed at RW 14 Tamansari while at RW 08 did not success. The research method is mixed method qualitative and quantitative, with dominant-less dominant-design. The result of this research shows that the composition and the characteristic of the waste produce is good both at research's places. Organic waste is the biggest percentage, the volume of the recycle waste at RW 14 Tamansari is 68% and 32% discard to TPS (temporary waste discard). At RW 08 Cikutra is 4% and 96% discard to TPS (temporary waste discard). The waste management at RW 14 Tamansari is composting the organic waste through Takakura and Biopori; recycle waste through handicraft, urban farming and waste bank. The supported factors to make the waste management succeed at RW 14 are the high societies' participation, supported facilities, fund, management and rules. At RW 08 Cikutra, the low societies' participation, unsupported facilities, no fund, and no rules about waste management become the obstacle of the waste management success.

Keywords: *Waste Managementy; Support Factors and the Obstacle; Environmental Study*

Abstrak. Masalah sampah merupakan fenomena sosial yang erat kaitannya dengan lingkungan dan ekonomi, program Bandung Green and Clean adalah gagasan kolaborasi sosial lingkungan pemerintah, perusahaan dan masyarakat. pelaksanaan kegiatan telah berjalan dan selesai sehingga penelitian ini bertujuan untuk mengetahui bagaimana komposisi dan karakteristik sampah yang ada di Kota Bandung, jumlah volume, sistem pengelolaan, manfaat yang diperoleh serta faktor- faktor yang menyebabkan keberhasilan dan kegegalan pada objek yang diamati. Metode penelitian yang digunakan adalah metode kombinasi dengan dominant-less dominant design, dimana penelitian kualitatif dominan dan penelitian kuantitatif kurang dominan adapun resmpondennya adalah warga yang mengikuti kegiatan sejumlah 10 KK dengan pengumpulan data melalui survei dengan analsisi berupa deksriptif dengan pengambilan kesimpulan pada triangulasi data. Hasil penelitian menunjukkan bahwa komposisi dan karakteristik sampah yang dihasilkan pada dua lokasi penelitian, jenis sampah organik merupakan jenis sampah yang memiliki persentase terbesar. Volume sampah yang dapat diolah pada RW 14 Kelurahan Tamansari yaitu sebesar 68% dan 32% sisanya di buang ke TPS. Pada RW 08 Kelurahan Cikutra volume sampah yang dapat diolah yaitu sebesar 4% dan 96% sisanya di buang ke TPS. Pengelolaan sampah di RW 14 Kelurahan Tamansari meliputi kegiatan pengomposan untuk sampah organik melalui takakura dan biopori, daur ulang sampah anorganik melalui pembuatan kerajinan, urban farming, dan Bank Sampah. Faktor- faktor pendorong terhadap pencapaian keberhasilan pengelolaan sampah di RW 14 Kelurahan Tamansari meliputi tingginya tingkat partisipasi masyarakat, sarana dan prasarana yang mendukung, pendanaan, manajemen serta faktor peraturan yang dibuat dan diberlakukan pada warga terkait pengelolaan sampah. Di RW 08 Kelurahan Cikutra, rendahnya tingkat partisipasi warga, kurangnya sarana dan prasarana, tidak adanya sumber dana lain juga tidak adanya peraturan tertulis maupun tidak tertulis terkait pengelolaan sampah menjadi faktor penghambat terhadap keberhasilan pengelolaan sampah di masyarakat.

Kata Kunci: *Pengelolaan Sampah; Faktor Pendukung dan Penghambat; Studi Lingkungan.*

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

INTRODUCTION

Garbage problem is generally a classic problem in big cities in Indonesia, (which has a high population growth rate). The impact of population growth, changes in people's consumption patterns, increased public consumption and people's lives in urban areas, will be followed by the volume and type of waste as a natural part of people's lives in urban areas. The waste problem is also experienced by the Bandung City Government. The city of Bandung, which was formerly known as "Parijs van Java" with its beautiful environment so that it was once dubbed the City of Flowers, is currently experiencing environmental degradation (Bashkirova & Lessovaia2, 2019; Meylan, 2018; Pranaditya, 2020). This is caused by the accumulation of waste in various places, among others due to the limited capacity of the final disposal site (TPA). In connection with that, the status of the City of Bandung which has been feared will be lost. The enactment of Law Number 18 of 2008 concerning Waste Management is something that is not new to waste management policies in the City of Bandung which directs waste management policies on the concept of zero waste with the importance of the community's role in waste management. This has a legal consequence that the government is the party responsible for waste management even though operationally the management can be carried out with business entities. In addition, waste management organizations and community groups engaged in waste management can also be involved in waste management activities (Johannes, 2018; Kumar et al., 2017; Lestari & Trihadiningrum, 2019). The problem of absolute waste must be handled jointly between the government, non-governmental organizations and the community itself (Azevedo et al., 2019; Pratama, 2015). Therefore, awareness and mutual commitment are needed towards changing attitudes, behavior and ethics that are environmentally cultured.

In 2019 the Bandung City Government collaborated with the private sector and non-governmental organizations to form a program called Bandung Green and Clean (BGC). The BGC program is a program built in collaboration between the Bandung City Government represented by the Bandung City Environmental Management Agency (BPLH), the private Unilever Foundation, People's Mind Media, Rase FM Radio Media, and the Institute for Appropriate Technology Applications (LPTT). One of the things that became the topic/programme of BGC's attention was the waste problem in the city of Bandung. Many similar studies on the BGC program have been carried out. Previous research has been carried out on several things, namely BGC studies on waste management activities, where research related to waste management in Gede Bage besides that it also has low participation, the Gede Bage area is a

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

trade and industry, land use patterns and areas are also a problem in itself. In 2019 the Bandung City Government collaborated with the private sector and non-governmental organizations to form a program called Bandung Green and Clean (BGC). The BGC program is a program built in collaboration between the Bandung City Government represented by the Bandung City Environmental Management Agency (BPLH), the private Unilever Foundation, People's Mind Media, Rase FM Radio Media, and the Institute for Appropriate Technology Applications (LPTT). One of the things that became the topic/programme of BGC's attention was the waste problem in the city of Bandung. Many similar studies on the BGC program have been carried out. Previous research has been carried out on several things, namely BGC studies on waste management activities, where research related to waste management in Gede Bage besides that it also has low participation, the Gede Bage area is a trade and industry, land use patterns and areas are also a problem in itself. 2019 the Bandung City government partnered with the private sector and non-governmental organizations to form a program called Bandung Green and Clean (BGC). The BGC program is a program that was built on a partnership between the Bandung City government, represented by the Bandung City Environmental Management Agency (BPLH), the private Unilever Foundation, People's Mind Media, Rase FM Radio Media, and the Institute for the Application of Appropriate Technology (LPTT). One of the things that became the topic/attention of the BGC program was the waste problem in the city of Bandung. Many similar studies on the BGC program have been carried out. Previous research has focused on several things, namely the BGC study on the sustainability of the waste management program (Winarto et al., 2019; Zakianis et al., 2018) the implementation of waste management in the community BGC program in the city of Bandung which has been studied previously resulted in the finding that the economic motive in community participation is a strong individual drive and the implementation of waste management in the community BGC program in Bandung City (referensi). Based on the results of previous research, it was found that the implementation of the waste management program in the BGC program encountered obstacles in the form of uncertain regulations from government and private cooperation even though in 2020 (Wulandini & Sembiring, 2019) it ended with a funding collaboration scheme, although overall it was considered that it had not succeeded in achieving its goal of creating a change in attitude/ behavior of people in the city of Bandung, especially in RW-RW participating in BGC, resulting in a reduction in the volume of waste disposed of at the TPS (Bashkirova & Lessovaia2, 2019; Winarto et al., 2019). However, it was also found that

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

there were RWs participating in BGC whose waste management programs were still running and were considered successful. The RWs include RW 09 Karang Anyar, RW 14 Tamansari, RW 04 Manjahlega, RW 06 Palasari, and RW 07 Cipamokolan. The RWs that were considered unsuccessful consisted of RW 08 Cikutra, RW 02 Cipadung, and RW 09 Cihaurgeulis, RW 10 Sukaasih and RW 09 Sukaluyu (Azevedo et al., 2019; David et al., 2017; Dobiki, 2018; Iacovidou, 2018; Sino et al., 2019; Winarto et al., 2019) (Dobiki, 2018).

Based on the description above, it is deemed necessary to raise the problem of household waste management in the city of Bandung with a comparative study of RWs whose waste management programs are considered successful and those that are considered unsuccessful. The author did not research all the RWs mentioned above, but only took one representative RW each. This is due to the similarity of RW-RW characteristics. The research focused on 2 (two) RWs, namely RW 14 Tamansari as an RW whose waste management program was successful and RW 08 Cikutra whose waste management program was not successful. The aim is to uncover the factors that influence the success and failure of waste management. With the results of this study, household waste management can be improved in the future. This research was conducted with the aim of knowing the composition and characteristics of the waste at the research site, how large the volume of waste that can be processed, how the waste management is carried out, what benefits can be taken from waste management, and what can be done. factors causing waste management. waste in RW 14 Tamansari was successful, while in RW 08 Cikutra it was not. The living characteristics of the community, work patterns and kinship systems also affect the success of a program, which is an illustration related to research on waste management in Badung Bali (Mega Lugina, IIs Alviya, 2017).

RESEARCH METHODS

This research is descriptive in nature, carried out using a combination of qualitative and quantitative methods, with a dominant-less dominant design, where qualitative research is dominant and quantitative research is less dominant (Bergeron, 2016; Boud et al., 2016; Harris et al., 2017). The sampling method is carried out randomly (random sampling), which is a way of taking elements from the population in such a way that each element has the same opportunity to be selected as members of the sample. Qualitative data collected from interviews, observations, and literature studies were then analyzed. Processed data in line with data collection by carrying out data reduction, namely the selection process of focusing, simplification, abstraction and transportation of raw data. The results of the quantitative data analysis are then displayed in the form of tables,

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

graphs/histograms in the form of percentage values that describe the measurement of community participation and the benefits/impacts of implementing waste management.

DISCUSSION

Composition and Total Volume/Weight of Household Waste in RW 14 Kelurahan Tamansari.

The total waste production generated based on sampling in RW 14 Tamansari Village is 68.67 kg/family/day with an average waste production of 1.073 kg/family/day or 0.268 kg/person/day equal to 1.5 liters/person /day. Based on the results of observations and secondary data, it was obtained that inorganic waste that entered the Waste Bank RW 14 Tamansari Village was 37% or equal to 25.41 kg, kitchen waste (organic) for takakura was 31% or 21.29 kg and the remaining 32% was disposed of. to a temporary disposal site (TPS). Thus, the waste that can be processed in RW 14 Tamansari Village from the total waste obtained based on sampling is 68.67 kg, the waste that can be processed is 68% or as much as 46.70 kg and 32% or as much as 21.97 kg was disposed of to the TPS.

Composition and Weight/Volume of Household Waste in RW 08 Cikutra Village

The total production of waste generated is based on sampling at RW 08 Kelurahan Cikutra is 104.67 kg/family/day with an average waste production of 1.325 kg/family/day or 0.33 kg/person/day is equal to 2.5 liters/person/day. Based on the results of observations and secondary data, it was found that the inorganic waste that entered the Waste Bank RW 08 Cikutra Village was only 4% or 4.16 kg, while for the remaining 96% or 100.51 kg of other waste, both organic and inorganic waste directly. disposed of in a temporary disposal site (TPS). Thus, the waste that can be processed in RW 08 Cikutra Urban Village of the total waste obtained based on sampling is 104.67 kg, waste that can be processed is 4.16 kg or 4% through the Waste Bank and as much as 100.51 kg or 96% the rest is disposed of to the TPS.

Household Waste Management in RW 14 Tamansari Village

a. Management Techniques

1) Waste Sorting and Storage. The community has started sorting waste in RW 14, Tamansari Village, since the incinerator was introduced in 2016. In 2019 RW 14 Tamansari took part in the BGC competition and at that time the incinerator was still being used, the use of the incinerator was discontinued at the end of 2019. With the end of the use of the incinerator, the officer's garbage is no longer in charge of sorting waste at the TPS. Garbage that has been sorted from households is immediately transported by officers to the TPS without any further

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

sorting at the TPS. Waste sorting which was initially only done to separate organic and inorganic waste, developed into sorting out which organic waste can be used for takakura and which ones are for biopori as well as which inorganic waste can be used as the basic material for making handicrafts and which can be saved to the bank.

2) Organic Waste Management. Organic waste management in RW 14 Tamansari Village uses biopori and takakura.
3) Inorganic Waste Management. Inorganic waste management carried out in RW 14 Tamansari Village includes making plastic-based crafts, Urban Farming, and Waste Banks.

b. Institutional

When participating in the BGC RW 14 competition, Tamansari Village did not form a new institution, everything was still under the coordination of the RW head. Institutional waste management in RW 14 Tamansari Village is carried out under the coordination of the RW with the aim of simplifying the process of implementing waste management. The RW management is responsible for the transportation system, providing waste facilities and infrastructure, as well as facilitating the payment system for cleaning staff. The RT management is tasked with collecting dues from the community and together with the RW management inviting and reminding the community. The environmental cadres in RW 14 Tamansari Village are the administrators and also members of the institutions in the RW with a total of 78 people. In 2019 the environmental cadres of RW 14 Tamansari Sub-district grew to 120 people, this additional number came from the general public. The main task of the environmental cadres is to remind the public at all times not to litter, as facilitators community in managing the environment and overseeing the implementation of waste management in the community (Halimah, 2015; Inghels & Dullaert, 2011; Ismail & Sidjabat, 2019; Joshi & Ahmed, 2016; Viljoen et al., 2021; Widyaningsih et al., 2015).

The mechanism for waste management starting from planning, implementation, and supervision is carried out by environmental cadres who also serve as administrators for RW, RT, PKK, Dasa Wisma, DKM, Karang Taruna, and Linmas under the coordination of the RW head (Lestari & Trihadiningrum, 2019; Muhammad et al., 2020; Winarto et al., 2019). As one of the criteria for the BGC competition, on June 5, 2019 RW 14 Tamansari Village formed a Waste Bank based on the Decree of the Head of the 14th Pillar of Residents Tamansari Village, Bandung Wetan District Number 02/SKep/RW/14/VI/2019 Regarding the Establishment of the Waste Bank RW 14, Tamansari Village, Bandung Wetan District and continued with the Decree of the Head of the Bandung City LPTT Number 02.73.09.01.14.10/I/LPTT/2019 dated January 10, 2019. The management of

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

the Waste Bank are PKK, RW, and RT administrators. Waste management institutions in RW 14 Tamansari Village are united with RW institutions under the coordination of the RW head with the aim of simplifying the process of implementing waste management. The Waste Bank Management is the PKK, RW, and RT administrators. RW management assisted by RT, PKK and also environmental cadres continue to invite and remind the public to be able to manage waste independently.

c. Financing

The operational funding for waste management operations and regional development in RW 14 Kelurahan Tamansari comes from three sources of funds, namely internal sources, external sources and income from waste management. Internal sources are obtained from citizen contributions. In 2019 the management of RW 14 made changes to the amount of dues and additional contributions for residents through the Decree of the Community Deliberation Number B. 33/RW/14/VII/2019 dated July 19, 2019. External sources of funds for waste management were obtained from waste retribution for the use of TPS. RW 14 by UNISBA. Tamansari Village consists of 20 RWs, and only two RWs have TPS (communal garbage bins). TPS RW 14 is not only used by residents of RW 14 but also used by other parties such as street vendors (PKL), UNISBA, and other RWs. This causes the garbage in the TPS to quickly fill up within a day or two. Since the Bandung Sea of Garbage incident, the TPS has been regulated and its use for outsiders is prohibited except for UNISBA with an MoU which states that UNISBA must contribute in terms of financing the waste retribution. With the MoU, UNISBA has an obligation to: to contribute in financing waste management to RW 14 Kelurahan Tamansari since 2016 is Rp. 400,000/month and has increased by Rp 800,000/month in 2019 until now. RW 14 Kelurahan Tamansari participated in the BGC competition in the period 2009-2011 and during the three periods participating in the BGC competition, RW 14 Kelurahan Tamansari received a total prize money of Rp. 22.500.000,- and everything goes to the RW treasury to be re-managed as development funds for the RW 14 area. The income that the community gets directly from waste management is obtained from the manufacture of plastic-based crafts (Azevedo et al., 2019; Inghels & Dullaert, 2011; Nadia & Khan, 2020; Situmorang, 2021; Tonini et al., 2020). In addition, residents who become customers of the Waste Bank can earn income from selling their waste to the Waste Bank. Sources of funds for financing the development of the RW 14 area arealso waste management activities, apart from being obtained from non-governmental organizations such as mandatory citizen fees, waste management fees, security fees, also obtained by inviting or making proposals to get

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

assistance from outside parties, such as the Mayor, BPLH, PD. Cleanliness, Plantation and Cemetery Service, Agriculture Service, PDAM Bandung City and Bandung Wetan District (Inglezakis & Moustakas, 2015; Kurniadi & Evanita, 2020; Pratiwi & Santosa, 2019).

d. Regulation

The regulations made by the RW 14 management are not legally binding, but are still in the form of an appeal or recommendation regarding the order in waste management. The management does not impose any sanctions on residents who do not comply with these regulations. The waste management regulations in RW 14 are related to the rules for sorting, storing waste, and transport schedules (Ismail & Sidjabat, 2019; Li & Wang, 2021; Syafrina, 2016; Winarto et al., 2019). The socialization of regulations on environmental management, especially waste management, carried out by the administrators was by distributing letters to every KK in RW 14, Tamansari Village. In addition to the socialization of regulations, the RW management also carried out socialization in the form of campaigns for trash friends through pamphlets such as not to litter, take care or take care of the surrounding environment which was installed or pasted in places that are easy and frequented by residents and also by providing small yellow trash cans made from used cans in every alley in RW 14 Kelurahan Tamansari also provides separate organic and inorganic trash cans. Although the regulations made are not binding, there is an unwritten agreement in the community to commit that maintaining cleanliness and preserving the environment is an obligation that must be carried out together. This commitment applies to new residents who come to the RW 14 area to participate in maintaining cleanliness in the RW 14 Tamansari Village environment. Waste management regulations in RW 14, unwritten since 2019 TPS RW 14. Kelurahan Tamansari can be used by residents of RW 14 as well as UNISBA with the stipulation that waste originating from UNISBA must be put in a large plastic bag and then disposed of at the TPS. For street vendors around Tamansari street and residents from other RWs, it is forbidden to throw garbage into the TPS. Although there is no written sanction, if there are residents who do not pay the mandatory dues or waste management fees, the management will continue to take actions such as waste from the residents' homes will not be transported or left to accumulate (Bashkirova & Lessovaia2, 2019; David et al., 2017; Marleni, 2018; McKinnon et al., 2017; Viljoen et al., 2021; Winarto et al., 2019). For students who do not want to pay dues, the student will not be assisted when he or she needs certificates from the RT or RW. Rules regarding waste management in RW The 14 Tamansari Villages listed in the appeal letter to

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

residents number: B.30/RW/14/IX/2019 dated 27 September 2019, namely:

Residents and students are requested not to litter;

a. Every morning and evening to clean the yard and the streets/alleys around each house;
b. Traders to participate in maintaining the cleanliness of the environment;
c. To sort out wet waste and dry waste, and put them in two different plastic bags/cracks.
d. Garbage collection by officers from 15.30 to 18.00 WIB;
e. In order not to throw/store the stockpile/used unloading into the trash bin (TPS RW 14, Tamansari Village), and/or surrounding areas.

Waste Management in RW 08 Cikutra Village

Waste management in RW 08 was carried out in 2019 when RW 08 became a participant in the BGC competition and became the 3rd runner up in 2020 and waste management activities in RW 08 Cikutra Village stopped in the same year. 62.0% of respondents were not involved in the implementation of waste management activities. As many as 75.9% of respondents have no longer carried out waste management activities such as sorting waste, making compost or making crafts from inorganic waste. The types of waste management activities carried out were 7.6% composting, 1.3% burning waste and 87.3% of the waste is directly disposed of to the TPS. Residents only store garbage that has been put in plastic bags in front of their homes and garbage is pulled and sorted from residents' homes by garbage officers every day and then collected at TPS. Withdrawal of garbage in one day produces an average of 3 wheels of garbage and one wheel contains approximately 300 kg of garbage. Required financing levies on residents for the cost of security, waste management, youth organizations, PKK, etc. is Rp. 4,000-6,000,-/KK. This mandatory fee is managed by the RW management which is then allocated for certain costs, for example for waste management costs, it is directly given to two waste officers. Waste management in RW 08 Cikutra was carried out in 2019-2020 when the RW took part in the BGC competition. In 2020 RW 08 Cikutra no longer participates in the BGC competition and pen waste management stops in the same year. However, the management of RW 08 Cikutra Village for the 2019-2020 period wishes to return to carrying out waste management activities. Based on the results of observations in the field, on June 26, 2020 Garbage Bank RW 08 Cikutra Urban Village began to be reactivated and inaugurated on August 13, 2020. The number of customers for the RW 08 Waste Bank was only 14 people including RW, RT, PKK and environmental cadres and 44 kg of waste collected in the Waste Bank. This shows a

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

good faith from the management of RW 08 Cikutra Urban Village to return to managing the environment, especially managing waste in its RW environment (Hasbullah, 2019).

Benefits of Household Waste Management

The benefits of waste management in RW 14 Kelurahan Tamansari and RW 08 Cikutra are presented in the table below, but previously the description related to the phenomenon of waste management based on this partnership program, empirically and theoretically this study is in accordance with the concept of Cohen and Upcofen (Ramadhan, 2014) explain that public involvement in environmental management can occur if the government as the holder of power and policy makers intervenes either as a program or in the form of partnerships with companies and communities called collaborative partnerships. In this aspect of partnership, research related to the process of achieving program sustainability and objectives requires aspects of experience and knowledge in the process of carrying out activities, including programs related to environmental management. There are four dimensions that will be measured in implementing the public partnership program, namely relevance, effectiveness, impact, efficiency and sustainability. In the context of this research, the dimensions measured are both a unit and a series in knowing the program's capacity and achievements. (Harjanti & Anggraini, 2020) states that the relevance of the program is a basis for conducting the program, then (Prabowo, 2017) states that in the management of waste and waste there is a social bond that should be carried out in an effort to encourage environmental sustainability, on the other hand the effectiveness of the program needs to be considered as (Ariwidodo, 2014) assesses that The waste management partnership program in Lampung did not run optimally due to limited resources and the short duration of the program, which is one month, so that this cannot be used as the basis for the community to have significant behavioral changes in understanding and recognizing the environment. If we look at the parameters that have been measured, it can be said that the fundamental change of success made is the existence of local economic and cultural motives, as (Kusumadinata, 2016) states that when a community has an attachment to the environment, they will subconsciously maintain and minimize damage due to activities. man. This study is a form of comparison of social experiments conducted at two different locations but the results of these activities are also different. This social intervention in the environment is also in line with research (Zulfikar & Rinaldi, 2019) in Aceh, that the heap of garbage that became polluted some time ago in addition to decreasing the value of ecological attachment is also a movement towards anthropocentricity

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

due to excessive public consumption resulting in waste.

Benefits of Household Waste Management

The benefits of waste management in RW 14 Kelurahan Tamansari and RW 08 Cikutra are presented in the table below.

Table 1 Benefits of Household Waste Management

No	Benefits of Waste		
	Environment	Social	Economic
1. RW 14 Kelurahan Tamansari	1. Changes in environmental quality in RW 14 Tamansari Village becomes cleaner and comfortable 2. There is a reduction in the number of volume of waste disposed to TPS 3. The environment becomes more beautiful and green with urban farming and reforestation	1. Communication and interaction has been established social in the community about caring environment, namely by the existence of mutual work together in an effort to create an environment clean	waste that is not useful, but if the waste can be managed properly, namely through composting activities, recycling inorganic waste into various crafts and also a waste bank, waste becomes a source of income for residents who can become customers of the
2. RW 08 Kelurahan Tamansari	1. Changes in environmental quality occurred when participating in the BGC competition in 2020. In contrast to the current conditions, the environmental conditions of RW 08 Cikutra Urban Village returned to the way they were before participating in the BGC competition, slums and garbage were scattered everywhere. 2. In the absence of waste sorting and management, waste from households is transported by the garbage	1. Social benefits of activities Waste management has been experienced by residents of RW 08 Cikutra Village in 2019-2020 when become a contestant BGC. But since RWThe person is no longer a participant in the BGC, the social benefits are no longer felt, although mutual cooperation activities are still routinely carried out	1. Benefit or impact the economic aspects of waste management in RW 08 Cikutra Urban Village were only felt by residents when the RW became a BGC participant in 2019-2020.

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

CONCLUSION

Waste management activities in RW 14 Kelurahan Tamansari is a composting activity for organic waste through takakura and biopori, recycling inorganic waste through making plastic-based crafts, urban farming, and a Waste

Bank. Waste management activities in RW 08 Cikutra Urban Village were carried out in 2019-2020. In 2021 until now, no waste management activities have been carried out. However, on June 25, the Garbage Bank RW 08 Cikutra Village began to operate again and was inaugurated on August 13, 2019 The benefits that can be taken from waste management by the community in RW 14 from a social point of view are the establishment of social communication/interaction in the community regarding environmental care, such as mutual cooperation/ community service activities. There is an increase in the community's economy from composting activities, inorganic waste recycling activities and from the existence of a Waste Bank. Besides that, there has also been a change in the quality of the environment in RW 14, Tamansari Village, namely the environment has become more comfortable, cleaner, more beautiful and greener. The benefits or impacts of waste management both on environmental, social and economic aspects in RW 08 Cikutra Urban Village were only felt by residents when the RW became a BGC participant in 2019-2012. The driving factors for the achievement of successful waste management in RW 14 Tamansari Village include the high level of community participation, supporting facilities and infrastructure, funding, management and regulatory factors that are made and enforced on residents related to waste management. In RW 08 Cikutra Urban Village, the low level of citizen participation, lack of facilities and infrastructure, the absence of other sources of funds and the absence of regulations written or unwritten related to waste management.

REFERENCES

[1] Azevedo, B. D., Scavarda, L. F., & Goyannes, R. (2019). *Urban solid waste management in developing countries from the sustainable supply chain management perspective : A case study of Brazil ' s largest slum*. *233*, 1377–1386. https://doi.org/10.1016/j.jclepro.2019.06.162

[2] Bashkirova, N., & Lessovaia2, N. (2019). *Waste Management as Functional Part of the Social Responsibilities of Business Waste Management as F unctional Part of the Social Responsibilities of Business*. https://doi.org/10.1088/1755-1315/272/2/022042

[3] Bergeron, F. C. (2016). Multi-method assessment of household waste management in Geneva regarding sorting and recycling. *Resources, Conservation and Recycling*, *115*. https://doi.org/10.1016/j.resconrec.2016.08.022

[4] Boud, D., Keogh, R., Walker, D., Reinhart, C., Wyatt, T., Vygotsky, L., Dewey, J., Young, M. G., Malisius, E., & Dueck, P., Utech, J. L., Maghuyop, A. Z., Sebastien, B., Team, T. E., Education, D. of, Furco, A., Innotech, Perin, D., Hare, R., Piaget, J., Zeidenberg, M., … Dewy, J. (2016). Curriculum development in vocational and technical education: Planning, content, and implementation. *Brooklyn, NY:Workforce Strategy Center*.

[5] David, M., Jak, F., & Rolph, H. (2017). Waste

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

sorting plants. *Iswa*.

[6] Dobiki, J. (2018). Analisis Ketersedian Prasarana Persampahan Di Pulau Kumo Dan Pulau Kakara Di Kabupaten Halmahera Utara. *Spasial*, *5*(2), 220–228.

[7] Halimah. (2015). Partisipasi Masyarakat Dalam Program Pengelolaan Sampah. *Prosiding Penelitian Dan Pengabdian Kepada Masyarakat*, *2*(2). https://doi.org/10.24198/jppm.v2i2.13272

[8] Harris, A., Jones, M., Cheah, K. S. L., Devadason, E., & Adams, D. (2017). Exploring principals' instructional leadership practices in Malaysia: insights and implications. *Journal of Educational Administration*. https://doi.org/10.1108/JEA-05-2016-0051

[9] Iacovidou, E. (2018). *A multi-criteria sustainability assessment framework : development and application in comparing two food waste management options using a UK region as a case study*. *2025*(Wrap 2016).

[10] Inghels, D., & Dullaert, W. (2011). An analysis of household waste management policy using system dynamics modelling. *Waste Management and Research*, *29*(4). https://doi.org/10.1177/0734242X10373800

[11] Inglezakis, V. J., & Moustakas, K. (2015). Household hazardous waste management: A review. In *Journal of Environmental Management* (Vol. 150). https://doi.org/10.1016/j.jenvman.2014.11.021

[12] Ismail, Y., & Sidjabat, F. M. (2019). Community Empowerment in Household Waste Management. *JCE| Journal of Community Engagement*, *01*(01).

[13] Johannes, H. P. (2018). *Waste Reduction Through Integrated Waste Management Modeling At Mustika Residence (Tangerang)*. *1*(1).

[14] Joshi, R., & Ahmed, S. (2016). Status and challenges of municipal solid waste management in India : A review Status and challenges of municipal solid waste management in India : A review. *Cogent Environmental Science*, *28*(1). https://doi.org/10.1080/23311843.2016.1139434

[15] Kumar, S., Smith, S. R., Fowler, G., Velis, C., Kumar, S. J., Arya, S., Kumar, R., Cheeseman, C., & Cheeseman, C. (2017). *Challenges and opportunities associated with waste management in India Author for correspondence :*

[16] Kurniadi, A. P., & Evanita, S. (2020). Strategi Komunikasi Manajemen Pembuangan Sampah di Kota Bukittinggi. *JRK (Jurnal Riset Komunikasi)*, *11*(1), 47–57. https://doi.org/10.31506/jrk.v11i1.7925

[17] Lestari, P., & Trihadiningrum, Y. (2019). The impact of improper solid waste management to plastic pollution in Indonesian coast and marine environment. *Marine Pollution Bulletin*, *149*(August), 110505. https://doi.org/10.1016/j.marpolbul.2019.110505

[18] Li, W., & Wang, J. (2021). Household waste management in Shanghai and its implications for the second-tier cities in China. *Journal of Cleaner Production*, *321*. https://doi.org/10.1016/j.jclepro.2021.128980

[19] Marleni. (2018). Strategi Pengelolaan Sampah Rumah Tangga Di Kelurahan Kota Medan Kecamatan Kota Manna Kabupaten Bengkulu Selatan. *Naturalis: Jurnal Penelitian Pengelolaan Sumber Daya Alam Dan Lingkungan*, *1*(1), 35–40. https://doi.org/10.31186/naturalis.1.1.5915

[20] McKinnon, D., Fazakerley, J., & Hultermans, R. (2017). Waste sorting plants - Extracting value from waste. *ISWA*.

[21] Meylan, G. (2018). *Solid waste management of small island developing states — the case of the Seychelles : a systemic and collaborative study of Swiss and Seychellois students to support policy*.

[22] Muhammad, A., Muhammad Hussein, M. Z. S., Zulfakar, M. H., & Sundram, V. P. K. (2020). Reverse logistics activities for household e-waste management: A review. *International Journal of Supply Chain Management*, *9*(1).

[23] Nadia, I., & Khan, G. (2020). The New Norms for Household Solid Waste Management in Time of Covid-19: Malaysian Legal Perspective. *INSLA E-Proceedings*, *3*(1).

[24] Pranaditya. (2020). *Pengembangan Indeks*

ISSN: p-2540-8763 / e-2615-4374
DOI: 10.26618/jed.v%vi%i.7188
Vol: 7 Number 2, April 2022
Page: 261-274

Penilaian Bank Sampah Skala Kota Studi Kasus Kota Bandung dan Kota Cimahi. *8*(2), 121–133.

[25] Pratama, A. T. (2015). Sistem Pengolahan Sampah Ramah Lingkungan Di Sekolah Kota Medan. *Biosel: Biology Science and Education*, *4*(1), 1. https://doi.org/10.33477/bs.v4i1.524

[26] Pratiwi, S. R., & Santosa, F. R. E. (2019). Household Waste Management For The Achievement Of SDGs In Bulak Surabaya. *THE SPIRIT OF SOCIETY JOURNAL*, *2*(2). https://doi.org/10.29138/scj.v2i2.901

[27] Sino, H., Ibrahim, M., Mustapa, M. H., & Mahadi, Z. (2019). Knowledge and practice of a water village community in household waste management: Appraising current problems and future recommendations. *International Journal of Environment and Waste Management*, *24*(4). https://doi.org/10.1504/IJEWM.2019.103643

[28] Situmorang, M. T. N. (2021). Effect Of Household Waste Management On Flood Prevention In Bekasi Regency. *Jurnal Ilmiah Teunuleh*, *2*(1). https://doi.org/10.51612/teunuleh.v2i1.43

[29] Syafrina. (2016). Pengelolaan Sampah Organik Buah menjadi Pupuk Dengan Menggunakan Mikroorganisme. *Jurnal Tekonologi Unimal*, *1*(2), 17–29.

[30] Tonini, D., Wandl, A., Meister, K., Unceta, P. M., Taelman, S. E., Sanjuan-Delmás, D., Dewulf, J., & Huygens, D. (2020). Quantitative sustainability assessment of household food waste management in the Amsterdam Metropolitan Area. *Resources, Conservation and Recycling*, *160*. https://doi.org/10.1016/j.resconrec.2020.104854

[31] Viljoen, J. M. M., Schenck, C. J., Volschenk, L., Blaauw, P. F., & Grobler, L. (2021). Household waste management practices and challenges in a rural remote town in the hantam municipality in the northern cape, south africa. *Sustainability (Switzerland)*, *13*(11). https://doi.org/10.3390/su13115903

[32] Widyaningsih, N., Tjiptoherijanto, P., Widanarko, S., & Seda, F. S. (2015). Linkage Model Between Sustainable Consumption and Household Waste Management. *Procedia Environmental Sciences*, *28*. https://doi.org/10.1016/j.proenv.2015.07.026

[33] Winarto, W., Mahfiana, L., Rosyidah, Z. N., & Wicaksono, A. (2019). Pendampingan Manajemen Pengelolaan Sampah di Masyarakat Desa Gagaksipat Kecamatan Ngemplak Kabupaten Boyolali. *Dimas: Jurnal Pemikiran Agama Untuk Pemberdayaan*, *19*(2), 191. https://doi.org/10.21580/dms.2019.192.5133

[34] Zakianis, Z., Asror, M. M., & Ferliana, E. (2018). *ASEAN Journal of Community The citizens ' participation of household solid waste management and monitoring of household solid waste separation in Kelurahan Citizens ' participation in household solid waste management and monitoring of household solid wast*. *2*(2).