

Green Community Participation Model in Local Wisdom-Based Green Waste Household Management Towards the Green City of Purwokerto - Indonesia

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Abstract

The problem of waste management in Purwokerto City is quite complex, it cannot be handled just on a project-based, but must be comprehensive with a vision for the future. In order to create a green city, it is not only the task of the government, but also requires the support of full participation from the community. Goodwill and political will from the government in realizing a green city must be supported by the community. The government recently has implemented waste processing technology to minimize the amount of waste (zero waste) towards green waste, with a hangar system, but until now it has not been successful. Community participation in reducing the amount of household waste is needed so that it can answer and solve the problems faced. The objective of the research is to build green community participation model in household waste management to support local wisdom-based green city development programs. This research is analyzed and designed as follows: green community participation model in cross-household green waste. The approach used was qualitative triangulation, interactive analysis, while the technique of taking informants was conducted by purposive sampling. The results showed that there was a transformation of a green community from a "project-based" to a "community-based". This is quite good in maintaining the sustainability of the green community. Green community actors participation in green waste has been quite good so far, this can be seen from the activities carried out including (a) institutional, (b) funding, (c) mobilizing or empowering the community by implementing a mutual cooperation pattern (kerigan), (d) operational techniques waste management with a 3R pattern (reduce, reuse and recycle), (e) carry out activities to clean rivers, this activity is known as the "dawn attack" operation, (f) carry out reforestation, (g) socialization of green city development programs, 3R pattern (reduce, reuse and recycle), (h) Fostering and establishing waste banks, (i) collaboration with the Environmental Office, Sanitary Human Settlements and Spatial Planning Office in waste management, (j) collaboration with the Cultural and Education Agency in disseminating waste banks and (k) collaboration with the Indonesian Army (TNI-AD), and with stakeholders in the procurement of trash can infrastructure.

Keywords: *Green Community, Green Waste and local wisdom.*

Date of Submission: 08-01-2022

Date of Acceptance: 22-01-2022

I. Introduction

A green city (green city) was formed by the Ministry of Public Works, and is set forth in the Green City Development Program (P2KH). P2KH consists of eight indicators, one of the indicators is waste management (green waste) and is related to the participation of community elements towards a green community.

The problem of waste management is actually not just a technology problem, but the implementation of technology itself, which concerns social aspects that can cause social problems. Social problems that arise in the form of (a) low collective community awareness of waste management. This social problem arises due to (b) the lack of efforts to involve the community and (c) the internalization process since the beginning of a program being developed. Studies on social aspects related to efforts in fostering community participation in waste management need to be carried out immediately. This reason is becomes the basis for the emergence of awareness of people's behavior at a certain level can be changed for the purpose of change (Saribanon 2009).

Community participation in waste management must be continuously improved, because without involving community participation, waste management will continue to burden the government and the pressure on the environment will increase. For this reason, it is necessary to find an effective approach in involving the community, as well as providing an understanding that waste is actually a resource that can provide economic value.

Kholil (2015) argues that most models of urban waste management in Indonesia only emphasize on environmental and economic aspects, whereas in an integrated system, community participation is a key factor in the operation of the system. The paradigm shift in household waste management from the old paradigm, namely "end of pipe", has become a new paradigm in waste management which is directed towards reducing waste sources towards zero waste or green waste.

II. Research Methods

The research method used is descriptive qualitative, the technique of taking informants using purposive sampling, while the data analysis uses interactive analysis and content analysis. Data collection used in-depth interviews, focus group discussion (FGD) and observation.

III. Discussion

Implementation of the Green City Development Program in Purwokerto City

A green city is a city that is environmentally friendly by making effective and efficient use of water and energy resources, decomposing waste, applying integrated transportation, ensuring environmental health, synergizing natural and artificial environments, based on urban planning and design in accordance with the principles of sustainable development. An environmental activist, namely Suprapti, 53 years old, an activist in Green Community who focuses on the use of inorganic waste stated the following:

"... we have held socialization, counseling and training among scavengers in Gunung Tugel, and also to women in *Darma Wanita* (organization of civil servant wives) in each Agencies in Banyumas City Government. The result of the training, the scavengers in Gunung Tugel have produced a lot of recycled waste products, but they are still having difficulties in marketing them. We are considering working with the Banyumas Regency Tourism Office. For direct consumers, we have provided a kind of small gallery and also sell at tourism objects such as Baturraden and Owabong, directly selling these items for holidays, and the results are quite good. But on the one hand there are still consumers who think that these goods are disgusting because they are made of trash...."

Waste Bank as an Efforts Towards Green Waste (zero waste) in Supporting P2KH (Green City Development Program).

A waste bank is a waste management system that regulates how waste can be managed so that it does not pollute the environment and also gain economic value. The process of operating a waste bank starts from the source of the waste (how to sort it), then it is processed at the waste bank, after that the waste is recorded, then the waste management is carried out. Utilization of the internal products of the waste that enters the waste bank, is valued in the form of rupiah currency and stored in a savings book.

The relationship between the waste bank management and its customers is the same as for any other bank, except that in general the customer deposits money, while in the garbage bank the customer deposits in the form of garbage. The existing system in waste bank is the flow of waste management, especially inorganic since from the source it is managed collectively either by *dasa wisma* (a group consisting of 10 - 20 family heads that are close together) or by the community that cares about waste. The management system at the waste bank is managed in a systematic way, from collecting waste at the source of waste until it can be reused, and the results are recorded in units (kg, Rp).

Waste management continues to develop from the old paradigm, which sees and considers that waste is useless, dirty and cost oriented, change to a new paradigm. Public knowledge about the old way of sorting waste then developed into a better and more systemized way, managed in a coordinated manner by the green community and expressed in terms of the waste bank system.

Coinciding with National Waste Awareness Day, the Environmental Office (DLHD) of Banyumas Regency, held a waste bank launching activity at the Satria Purwokerto Sport building Complex Office in an effort to improve the repair of environmental pollution. The activity carried out by Banyumas Regency Environmental Office (DLHD) was attended by various elements of the official, school, community leaders, environmental leaders or environmental activists, humanists, TNI (Indonesian Military) / *Polri* (National Police), and this activity received a positive response. This activity also carried out the process of handling organic waste using the KASPARI model. The KASPARI model has the value of togetherness, is efficient, and of course will increase the use of organic materials in the Purwokerto City area.

DLHD Banyumas Regency has formed 40 waste bank units in the Purwokerto City area some time ago as a pilot for the community, and it is hoped that in the next year, 2022, more waste banks will be formed. The garbage bank in Purwokerto, namely the SUMBER BERKAH Waste Bank in the Satria Purwokerto Sport building Complex Office, was one example that was exhibited at the event, as well as the Arcawinangun PAS (Arcawinangun Waste Management) Waste Bank. Furthermore, in managing waste in a waste bank, the Head of DLHD Banyumas Regency, argues about the organic waste processing process by practicing the KASPARI model as follows:

“... this waste management process is very effective and has an economic impact on the community and also for the local government, such as transporting less waste to the landfill, because the organic waste process is carried out in each area using the KASPARI model process. Besides that, the use of organic waste will also increase the fertility of the soil around the community. There is a value of togetherness in this waste processing process. This is one of the efforts to support the achievement of Banyumas Regency in the 2014 Adipura environmental awards and this effort must be supported by all people and requires the participation of the people in Purwokerto City....”.

Green Community Participation in Local Wisdom-Based Green Waste House Hold Management.

In general, community participation will appear in line with the increasing of community empowerment. In communities that are already independent, community participation will emerge by itself. However, it will take a long time to reach this level and this is of course through various efforts. Community participation is very important in implementing a household waste management program by re-exploring the local wisdom of the Banyumas community in the form of a mutual cooperation pattern (*kerigan*).

Although Green community was formed based on government interest or the P2KH project, there are several actors who are committed to making green communities in green waste a community need. Evidently, although support for infrastructure from the government is currently lacking, these actors are still committed to going down to the community. The actor in green waste conducts counseling, community service (*kerigan* pattern), fosters communities who care about waste. To avoid burnout, the green community actors conduct simulations and practice green waste management and provide door prizes in the form of handicraft items from in-organic waste to the extension participants.

According to Sastropetro, green community in mobilizing community participation is by providing a response and showing various alternative activities that allow community involvement. There are five types of community participation, namely: Participation in the form of thoughts, Participation in the form of skills (expertise), Participation in the form of labor, Participation in the form of assets (alternative support in addition to community capital), Participation in the form of money.

The realization in the field of the Purwokerto City Green Community participation in local wisdom-based household waste management with *kerigan* pattern in supporting P2KH of Purwokerto City.

Community Participation Green Community in Institutional Aspects

Even though the Purwokerto City Government has collaborated with local governments around the City of Purwokerto through the Regional Management Cooperation Institution concerning Joint Management of Waste (Joint Management), and Solid Waste Services in the BARLINGMASCAGEB Urban Area (Banjarnegara, Purbalingga, Banyumas, Cilacap, Kebumen), but it doesn't reflect the existence of institutional community participation, because this collaboration is only between Banyumas Regency and Local Government (Government to Government).

Purwokerto City already has several non-governmental organizations (NGOs) that observe the environment that have participated in environmentally friendly waste management towards green waste, namely PAS Arcawinangun Waste Bank, Berkoh Mandiri Garbage Bank, Sukanegara Waste Community, Mersi Garbage Community. Banyumas Regency has formed a green community which aims not only in environmentally friendly waste management (green waste) but also in environmental management.

Institutionally and structurally, there are several institutions (government and non-government), especially at sub-districts and village level that have not optimally functioned their participation in environmentally friendly solid waste management. So far, it has only been functioned in appealing and socializing policies regarding hygiene management in general, including environmental cleanliness.

Green Community Participation in the Waste Management Funding Aspect.

In the funding aspect, community participation is limited to passive participation, through the waste fee payment fees that have been set by the Purwokerto City of the Banyumas Regency Government. Operationally, the cost of solid waste management has never been fulfilled from the community retribution fees, it still has to be supported by the Banyumas Regency APBD funds. Based on information from an official at the DCKTR (Human Settlements and Spatial Planning Office) Finance Section of the Banyumas Regency Government, he stated that:

“.... for financing waste management, divided into regional budgets (APBD) and retribution (residents, companies, hospitals, markets, etc.). Currently, the cost of waste management which comes from community retribution is 60%, while 40% is supported by the Banyumas Regency APBD. There is an assumption that the problem of waste management is the duty of the Government and not the task of the community so that residents do not have to bother paying more fees. This kind of thinking seems to need to be straightened out, because indeed the government has a responsibility, but this waste problem cannot be borne entirely by the government alone. This is done for the benefit of all society. Therefore we need active participation from the community, scavengers, private entrepreneurs / investors, academics, environmentalists...”.

Green Community Participation in Community Empowerment Aspect

Green community participation in moving the community by re-activating existing local wisdom in the form of a mutual cooperation pattern (*kerigan*) or community service among the community. Of course, the mutual cooperation pattern (*kerigan*) that is regenerated can be revitalized by adjusting the current conditions and situation. This is important so that togetherness in the form of *gemainschaf* and *gesellschaft* can be maintained continuously, so that existing programs can run well.

The head of the green community, Hendri, stated the following:

“...a mutual cooperation pattern (*kerigan*) in community service is very important to be revived in waste management in urban areas. Although currently there is a need for revitalization, this cooperation pattern needs to be re-empowered, because currently those activity in urban areas is fading away. Through this mutual cooperation pattern (*kerigan*) which is local wisdom and social capital of the community, togetherness will increase even more, among people who are currently increasingly individualistic. It has been proven, *mas*, in ancient times, through this *kerigan* pattern, Purwokerto City can achieve several achievements, thanks to the togetherness of the people of Purwokerto City. Currently, we, from the green community, are trying to revive and re-develop *kerigan* pattern in household waste management among the community...”

Green community participation activities in other aspects of community empowerment, namely providing guidance to the waste bank community, to become a waste bank, in terms of waste bank management, household waste management. Hendry, the head of Green Community, stated that:

"There have been several communities that have been given guidance on waste management, such as the Berkoh waste bank community (now the Mandiri PAS Waste Bank), the Sokanegara Waste Bank Community, the Limas Agung Housing Waste Bank Community, Arcawinangun, Ledug, the Garbage Bank Community in Sumbang. *Alhamdulillah* all thanks to good cooperation between the green community, which is in charge of solid waste and the people who care about waste. Henceforth, we wait and play an active role in carrying out this activity in collaboration with other communities....”

Other technical operational participation from the green community is conducting counseling activities on household waste management to Family Welfare Movement (PKK) members consisting of the wives in each housing, in collaboration with the neighborhood units (RT) head and the PKK Chair in each housing. One of the green community administrators, Agus said, that:

“... This counseling is carried out because there are still many piles of organic and inorganic waste that are dumped into the river, so that the river is getting shallower and the water flow is disturbed. In addition, the existing pile of garbage are increasingly causing river pollution. In the end, there will be changes in biota and the emergence of threats to the continuity of human life if the contamination reaches the stage of heavy metal contamination....”

Other green community participation activities include conducting counseling on waste management with the 3R pattern of efforts to create green waste and also on socializing the existence of waste banks and waste that have economic value. Socialization is always in collaboration with *dasa wisma* in each proposed settlement. Several *dasa wisma*, Family Welfare Movement (PKK), neighborhood units (RT), waste-concern community, Green Communities in the Village area that have requested and have conducted socialization about waste management with the 3R pattern towards green waste, are Arcawinangun, Ledug, Mersi, Berkoh, Sokabaru and Kembaran.

As stated by the head of the green community, who was also the chairman of the PAS Arcawinangun Waste Bank, Hendri as follows:

“... There have been many collaborations with several *dasa wisma*, waste bank communities, neighborhood units (RT) and community units (RW) in the Purwokerto City area, regarding the socialization and counseling on sustainable waste management with the 3R pattern among housewives member *dasa wisma*, neighborhood units (RT) / community units (RW) residents, waste-concern community and Family Welfare Movement (PKK) members, from neighborhood units (RT) to village levels. Socialization is carried out at the group meeting, so that it does not interfere with their time. This socialization is carried out almost every two months, depending on the invitation we receive from the group. In general, they are very enthusiastic....”

Another participation from the green community of Banyumas Regency is to help carry out public surveys in order to find out people's perceptions and responses to the arrangement of the Purwokerto City square. As it is known, when the plants, trees and allotment of the square were to be arranged, there was a massive demonstration from the community, both the merchant community around the square, cultural experts who associate the existence of trees with Banyumas culture, and the wider community.

The green community survey results of respondents from various socio-economic strata, show that generally the people of Purwokerto City can accept the arrangement of trees, grass and spatial planning of the square. This can be seen from the public response that 39.6 percent of the people stated that they were happy with the arrangement of the Purwokerto City square because it could decorate the “beauty” of the face of Purwokerto City, while 27.8 percent of the people said they were sad and disappointed because many trees were cut down and can no longer sell in the square, and as many as 27.5 percent of the people say that they are normal, they do not have

a problem with the arrangement of the square or are "ignorant". Most of the people or as much as 96.6 percent feel that the community should be involved in planning the arrangement of this square, so that they feel they own the square and feel "humanized".

The green community concludes that in general the community is very concerned about the arrangement of the square and spatial planning for the city of Purwokerto. Given the high concern of the people of Purwokerto City towards city planning, it is hoped that the local government will involve community participation in decision making in every environmental program related to public spatial planning. This is important so that people feel humanized by the government, so they feel they own the square.

Green Community Participation in the Implementation of Environmentally Friendly Waste Management in an effort to create green waste.

Community participation, which is considered the most important in waste management lies in the operational engineering aspects in the field. This is because the form of waste management in the future is expected to start from a source of waste or it means a household that produces waste have more role in carrying out waste management starting from the stages of sorting, packaging, collecting, transporting and managing waste.

Other technical operational participation activities from the green community are regarding Greening at Barsole Indah Housing. This is a small step in the Purwokerto P2KH Program. On 9 December 2012, the green community (green community) together with the women of Basole Indah Housing, Karangpucung Village carried out reforestation and tree planting along the residential streets. The 2016 P2KH Purwokerto program is one of the role models for developing green communities in various locations in the Purwokerto Urban area. According to the narrative of an official at Sanitary Human Settlements and Spatial Planning Office (DCKKTR) who is in charge of spatial planning and the environment, namely Strong Sudaryanto, told researchers that:

"... the success rate of the green community program at Barsole Indah Housing has reached 95%, this can be seen from the trees that are getting bigger and green since the 6 months of planting. Indeed, there were several fallen trees, but this was due to non-technical factors such as being hit by a car, not caused by inadequate maintenance. The success of planting which reaches 95% clearly will not be achieved if there is no active participation of the green community in caring for and maintaining the trees that have been planted. This is the success of the green community in this activity and it deserves a thumbs up for friends in the green community who work together with residents in Barsole Indah Housing. Their actions should be appreciated and hopefully it will become an example for other housing areas...".

Green community participation activities in reforesting the City of Purwokerto, they collaborate with the Regional Environmental Office (DLHD), carry out reforestation. Technically, trees are obtained from the community or entrepreneurs who take care of environmental permits, every businessman who wants to carry out an environmental permit is asked to contribute to donating tree seedlings. Actually they have to plant them, but because they have difficulty in choosing the location, so DLHD will coordinate it. After the location is known, the green community together with the community will carry out planting or reforestation at the specified location. It was recorded that 12,000 trees were planted in reforestation locations due to the collaboration between the company, DLHD, the green community and the society.

The green community participated in implementing preparation activities to win the Adipura trophy award. Green community activities in participating in the preparation of Purwokerto to become a green city, they collaborated with DLHD Banyumas Regency, forming an Adipura post located in the DLHD Office Building. This is important, so that all input from the people of Purwokerto City can be accommodated and followed up by operational techniques. The Adipura Post, which was initiated by the green community and DLHD, always involves the people of Purwokerto City in their activity. For example, carrying out "clean" Friday activities together with the community and also the Indonesian Army (TNI-AD) by taking turns cleaning around the shops.

Green community participates in the formation of a waste bank. The BLHD of Banyumas Regency is targeting for each neighborhood units (RT) to have one waste bank. The implementation is in collaboration with the green community. Before forming of a new waste bank, the Green Community always conducts socialization about the waste bank. Management training in waste bank management is carried out by the green community after the community understands it. In 2015, only four waste banks were established. In 2016, the target is for each sub-district to have one waste bank. The participation of the green community in the formation of waste banks, which includes socialization, counseling and management training on waste banks supports the realization of green waste management.

Green Community Participation in the Inter-Institutional Cooperation aspect as an Efforts Towards Green Waste.

Another green community participation activity is to collaborate with the Regional Environmental Office (DLHD) and Sanitary Human Settlements and Spatial Planning Office (DCKKTR) Banyumas Regency, to involve entrepreneurs or region-owned enterprises (BUMD) stakeholders to be willing to participate in providing garbage

collection facilities to be placed on each protocol road. This activity was quite successful, as evidenced by several thousand trash cans that have been installed on every sidewalk of the main road in the city of Purwokerto. Stakeholders who have participated in the provision of trash cans and have installed them are the result of cooperation with the following: (a) BLHD; (b) Skiva; (c) PT Biotaraka; (d) Alfa Market; (e) BNI46; (f) BRI; (g) Rajawali Theater; (h) Banyumas radar; (i) PT. Indosat; (j) Pawnshop Offices; (k) Developer Sapphiere Regency; (l) Pujiro Group; (m) Rita Supermarket; (n) Griya Satria Developer and (o) BKM Satria Sokasari.

However, it appears that several trash cans have been damaged by the community, there are even trash cans that are still clean, or trash cans that are intended for organic and non-organic waste, but in practice they are mixed, making it difficult for officers from Sanitary Agency. This shows that public awareness of cleanliness and sustainable waste management (green waste) is very lacking. As a result, the people of Purwokerto City are still not optimally used the trash cans. On the one hand, officers from the Sanitary Human Settlements and Spatial Planning Office (DCKKTR) in collecting waste are also still mixed, so they do not support the separation of waste between organic and non-organic.

There needs to be awareness among officers by holding various outreach to them in order to understand and realize the importance of separating organic and non-organic waste. An official at the Human Settlements Office, Zahrin, stated the following:

“... Indeed, the participation of stakeholders is quite good Sir, unfortunately the awareness of Purwokerto City community is still not as expected. It can be seen that many of the trash cans are still empty, even if they are filled, a lot of the contents are mixed up. In fact, if you look at the nominal price of the barrel, it costs Rp. 400,000.00 for one installed trash can. Therefore, it is very important for community participation, for that public awareness needs to be increased....”

The person in charge for the Waste Bank “Mandiri” Berkoh, Zulhan (2014), stated about the existence of trash cans that are located in various streets in Purwokerto as follows:

“... it's useless sir, even though we put a lot of trash cans on the streets of Purwokerto, if the mental and public awareness of garbage is still low. What is important is that people's understanding and perceptions and attitudes need to be changed first, then the garbage cans are built. It could also apply sanctions to people who throw garbage anywhere. Indeed, the community must be forced to obey the regulations in waste management. For example in Singapore, the people are orderly in traffic, garbage disposal and so on. The Indonesian people who visited Singapore can also comply with the waste disposal. This means that Indonesian people can dispose waste orderly, it's just that the system needs to be emphasized for Indonesia so that it can emulate in Singapore. It is true that changing attitudes and behavior will take a long time, but if it doesn't start now, when will it be...”

The trash bins that have been built by DLHD and the stakeholders in Purwokerto city are currently damaged. So DLHD Banyumas has programmed to add or replace new trash cans quickly.

Green community participation activities in operational techniques are socializing waste banks, by conducting waste banks cooperation with SMP Negeri 5 Purwokerto and BLH Banyumas Regency.

With the existence of waste bank, besides the environment being clean, garbage is also collected and can be managed for useful things, for example, as fertilizer or household craft materials are also getting better. "We ask that later in each sub-district there is a waste bank," said Cipto Pratomo, 52 years old.

This is one form of activity from the green community in managing household waste towards green waste, especially waste banks in an effort to socialize the existence of a waste bank and make students of SMP Negeri 5 Purwokerto aware of the importance of maintaining environmental cleanliness by using the *kerigan* pattern. This is one form of green community participation in local wisdom-based household waste management on environmentally friendly towards green waste efforts to support the green city of Purwokerto.

Green Community Participation in Maintaining Environmental Balance

The participation of the green community in maintaining environmental balance is by conducting a DED in Arcawinangun City Park, located in Arcawinangun Village, East Purwokerto. The area of this city park is 5,400 square meters, and was built into an educational park that emphasizes the concept of green open space.

D. Ruwiyati, stated:

“... Banyumas Regency currently has reached 15% of RTH, namely 10% public RTH and 5% private RTH. Then the socialization is carried out through the green community. Arcawinangun Village was recently awarded as the greenest urban village in Central Java Province. This is one of the successes of the green community in fostering the Arcawinangun community, because the green community has arranged the park in Arcawinangun to become an educational park...”

One of the officials at the Banyumas District Sanitary Human Settlements and Spatial Planning Office (DCKKTR), stated that:

“... The first garden creation program to be implemented was Balai Kambang Park in Arcawinangun and in Jatilawang. Furthermore, in Purwokerto city, a city park has been established which is also a recreation area for the people of Purwokerto City, namely Recreation Park "Andhang Pangrenan" (TRAP), 2014. These parks, are

visited by the people of Purwokerto City on weekdays in the afternoons and on holidays. Henceforth, because Banyumas has 24 urban areas, it should have at least twenty four parks. The spatial layout must also be adjusted to the existing city developments. This is a challenge from the Government, the community and the green community to encourage the achievement of a number of parks in order to support the green city development program of the City of Purwokerto... ”.

The participation of the green community in maintaining environmental balance, namely by carrying out activities that involve community participation (green community) in the provision, arrangement and maintenance of green open space is important, because the community will be the main beneficiaries while building a sense of ownership of green open space.

In this P2KH activity, it is also hoped that it will be able to create awareness of the importance of green space and lifestyle changes that are more concerned with the environment and manifest in a wider practice. One of the activities is the “Balai Kemambang” Park DED, with an area of 1.2 hectares, designed to be a water park, which is equipped with a two thousand square meter pool that surrounds the building.

Several other green spaces that are currently in place in an effort to support the realization of a green city with the P2KH program are (a) TRAP (Andhang Pangrenan Recreation Park) with an area of 1.8 hectares, (b) "Satria" Park (Berkoh), (c) "Sudirman" Park (Karanglewas), (d) Baturraden Botanical Garden (QUOTE).

The parks planned by the local government together with the green community are (a) KEHATI Park (containing various rare plants), (b) Fruit Garden (planned like mekarsari in Bogor), (c) Rita Theme park (natural concept).

Green community participated in making biopore infiltration holes. At several points such as in Arcawinangun, Karangwangkal, and Mersi, biopore infiltration holes were made. The making of biopore infiltration holes is carried out in school at the elementary, junior high school and senior high school levels as well as in offices / services in the Purwokerto City area. Generally, public awareness of the importance of biopore infiltration holes this is still lacking, due to ignorance of it's benefits.

Specifically for the community, there was counselling on the importance of infiltration wells and biopore infiltration holes for the environment. Training was also conducted on making infiltration wells and biopore infiltration holes. The activity of making biopore infiltration wells, as a pilot in Jenderal Soedirman University by the Environmental Science Masters Program at LPPM.

Actor Green Community's Participation in Preserving the Nature of "Slamet Mountain" supports Efforts to Realize Green Waste

Gregorius Magnus Finesca, about the activities of the “Slamet Mountain” Environment Care Gathering Forum (FSPL).

FSPL is an environmental care forum whose members consist of a combination of nature and environment-concern communities also known as the green community forum in Banyumas, Purbalingga, and Cilacap Regency which was established in 2012. The activity that has been running for two years is holding activities "Bersih Slamet" (cleaning Slamet Mountain) as an efforts to conserve the natural environment of the mountain with an altitude 3,432 meters above sea level. The real activities include cleaning of visitor waste, the "Slamet Mountain" climber. Currently the activity of "Slamet Mountain" is in very dangerous condition. On April 1, 2014, the status was declared “alert” (level II). Massive climbing with many paths makes the mountain filled with garbage and threatens its sustainability.

"Slamet Mountain" is the second highest mountain in Java Island, currently its environmental conditions are very apprehensive, becoming a "sea" of garbage organized by "fake" environmentalists. A group of youth belonging to the green community, Slamet Mountain Environment Care Gathering Forum (FSPL), is willing to go to great lengths to go along the hiking trails to pick up tons of inorganic waste left by the “fake” nature lover. A number of strategies were initiated so that mountain climbers feel "deterred" from polluting the "Slamet" mountain. For the sake of one mission, to keep "Mount Slamet" sustainable.

The FSPL green community participates by taking real actions in the form of cleaning up "Mount Slamet" from in-organic waste, campaigning on waste management and environment for visitors and mountain climbers, planning a waste deposit system in collaboration with Dispora (Youth and Sport Office) and the community around "Mount Slamet".

Setyanto, 34 years old, an FSPL member from the Banyumas green community, explained about the current state of waste in "Slamet Mountain" as follows:

“.... garbage along the hiking trail is alarming. Maybe many people see this effort as salting seawater which means doing something pointless, but we are sure that climbers who see our toil in the future will think again before throwing trash on the mountain. Actually, it is not only in the hiking trail, but the garbage is also disposed of at will in several shelters, starting from post I to post VII, and many climbers also throw garbage in the forest.... ”.

The same statement was conveyed by Aji, 29 years old, an activist of the FSPL "Slamet Mountain", who revealed that:

“... Looking at the climbing data and estimating the amount of logistics that each climber carries, the garbage along the climbing route will continue to pile up. One climber brings logistics at least 5-8 packs of instant noodles, 3-5 boxes of milk, 10-15 packs of coffee, 2 cans of sardines, 3 packs of wet wipes, 3 rollers of dry tissue, 3 bottles of mineral water and 1 pack of cigarettes. In the March 2014 sweeping, dozens of members of “Slamet Mountain” PSPL at least managed to collect and bring down 57 large bags full of inorganic waste. Each bag contains 15-20 kg of garbage, so that the total is around 1,140 kg (1.14 tons) of waste that is brought down by FSPL (green community) members...”

The remaining forest area currently reaches 52,617 ha, with a third of around 20,000 ha in the form of protected forest. “Slamet Mountain” is always crowded with visitors from various regions, from among students, university students, the general public, and every year the number of visits continues to increase. Based on existing data, the number of climbers to “Slamet Mountain” every year is around 50,000 people climbing routes through Kaliwadas in Brebes Regency, Bambang in Purbalingga Regency and Baturraden in Banyumas Regency.

As for the endemic fauna in “Slamet Mountain” includes Javanese eagles, leopard, Javan surili, Javan gibbons, *rekretan* (endemic langur), forest cat and deer. Meanwhile, endemic flora include gem orchids, nepenthes, Javanese palms and Javanese areca nuts.

This natural wealth must be maintained and preserved so that it is not polluted. This is becomes an attraction for visitors, mountain climbers and also the sustainability of the ecosystem and the conservation in it is well maintained. Inorganic waste left by visitors and climbers need to be cleaned and managed properly. It is everyone's responsibility to look after it. It is necessary to raise awareness to all parties to participate in maintaining the cleanliness and environmental sustainability of “Slamet Mountain”.

Based on this description, it can be concluded that the condition of “Slamet Mountain” environmental quality is currently declining, therefore it needs the participation of all parties without exception in order to maintain environmental quality towards a better level.

One of the community groups that care about “Slamet Mountain” environment is the Slamet Mountain FSPL green community, this group has taken real action on a regular basis in the following ways (a) cleaning up inorganic waste in “Slamet Mountain” which comes from visitors and climbers, (b) planning a **campaign** for environmental preservation and garbage cleaning, (c) initiating a **Waste Deposit System** in collaboration with the Dispora (Youth and Sports Office) and the local communities around “Slamet Mountain”.

Participation of Junk Collectors / Entrepreneurs / Stalls in Waste Management

The Regional Government of Banyumas Regency in waste management has collaborated with private parties / investors. The form of cooperation undertaken is that the company performs sweeping and transporting waste independently in its industrial environment and the neighborhood of shops and employee's housing in the industry. This collaboration is carried out with PT “Aries” from Semarang city in processing organic waste at “Gunung Tugel” landfill. However, in disposing of garbage, the company must cooperate with the local government in disposing of waste to the “Gunung Tugel” landfill, according to the tariff set in the Banyumas Regency Regional Regulation.

The efforts of the local government in waste management, namely the existence of junk collectors / entrepreneurs and waste banks have contributed significantly in the household waste management. Junk collectors / entrepreneurs and waste banks purchase inorganic waste that can be recycled, such as plastic, paper, cardboard, scrap metal, rubber, used beverage bottles and so on. The existence of junk collectors and waste banks is also very much determined by the presence of raw materials for waste, from scavengers and waste bank customers.

In the management of inorganic waste, the existence of scavengers and waste bank customers has big contribution to environmental cleanliness. They directly contributed to the effort to win the Adipura award and support the Purwokerto Green City development program. Without scavengers, garbage will pile up and can disturb the beauty and health of the people of Purwokerto City.

Junk companies in Purwokerto City also participate in waste management, either through CSR programs or through direct assistance to the community. The study took a sample of two junk companies in Purwokerto city, with the consideration that these companies are included in the large category and really care about the environment.

Regional Business (UD) junk company “Mapan”, is one of the junk companies. The initial goal of the establishment of this company was solely for the recycled non-organic waste business, but in its development, in addition to business objectives, it also participated in reducing environmental pollution. Types of used goods (junk) received by UD “Mapan” Company are used paper, cardboard, used beverage bottles, rubber, iron, cans, used goods made of iron or zinc. Goods or waste received by this company are items that are difficult to recycle in nature. The solution so that these goods can be overcome and do not pollute the environment is that they can be reduced by reuse and by reducing usage.

Companies are required to establish good relationships with scavengers, waste banks and waste-caring communities, so there are efforts to establish social relationships with the local communities where the company is located. This is important in order to get support and not be disturbed by irresponsible local communities. Therefore it is necessary to be supported by all parties, namely local government, banking, society, environmentalists, scavengers, investors/ entrepreneurs, legislators, journalists so that this junk company can run well. It can even develop to be able to process your own waste to be recycled.

Such is the participation of inorganic waste collectors and recycling entrepreneurs, as one of the community concerned about waste (PAS) in an effort to create green waste. This is also done in the context of the waste business and as an effort to help preserve the environment.

The activities of these entrepreneurs are unconsciously and directly supports the Purwokerto City government program in the field of environmental support for green cities so that Purwokerto City becomes a clean city.

IV. Conclusion

The initial green community was formed, basically because of the interests of the "project", which is one of the requirements of the green city development program (P2KH). Therefore, the existence of the green community is more inclined to a technological term rather than a social term. This means that green community was formed by the government in connection with the existence of a project, so that its sustainability is questionable. However, in its development, due to the commitment of several environmental actors, it gradually shifted to a socially based green community. Eventhough this requires a long time and high commitment from these dominant actors in moving the green waste community elements towards a green community.

Green community activities in mobilizing community elements to participate in green waste household waste management has a broad dimension and community participation is needed in relation to the need for a clean, fresh, beautiful, orderly, comfortable, and green environment. Participation is formed because of the driving factors, namely needs, hopes, motives and moral impulses as well as local culture.

Community participation in handling household waste is needed, especially in the caring process. Several driving factors emerge for the participation of community actors, including motives and rewards, availability of facilities and infrastructure, moral and socio-cultural encouragement. Although the green community has made various efforts to participate in waste management, it needs to be more optimized, especially in exploring local potentials such as *kerigan* pattern as social capital.

Green community participation in environmentally friendly waste management (green waste), is carried out through contact with other parties as one of the starting points for social change. The social change in question is in absorbing and responding to information in the sense of accepting, approving, accepting conditions, or rejecting participation in the implementation of development operations. Green community participation has so far shown quite good results, but needs to be improved. One side of the local government has so far been less supportive in the field of infrastructure for green community activities towards a green city.

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Edy Suyanto, et. al. "Green Community Participation Model in Local Wisdom-Based Green Waste Household Management Towards the Green City of Purwokerto - Indonesia." *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)*, 16(01), (2022): pp 58-67.