

Empowerment and Literacy Development Through Waste Management (Case Study of Bank Sampah and Limbah Pustaka in Muntang Village, Purbalingga Regency)

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Abstract — *This study aims to explore the empowerment efforts while increasing community literacy through waste management in Purbalingga. This research is important to be research, where the problem of waste is an endless problem. Every day almost everyone produces waste, including in Purbalingga Regency therefore with the existence of Bank Sampah not only can reduce waste problem, but also can empower people to more aware about enviroment and in the other hand can increase the economy of community itself. On the other side, literacy of community still become critical issue in Indonesia, including in Purbalingga Regency, so that with Limbah Pustaka, the literacy of community in Purbalingga can increase dan in the end can support community to achieve a better life. This research methodology is qualitative with a case study approach. Data collection is done by observation, in-depth interviews and documents or archives. The purpose of this comparison itself is to see how empowerment and literacy development through waste management. This research is expected to produce a good model or design in waste management efforts, and later it can become an example or model for other communities in Indonesia.*

Keywords: *Waste Management, Empowerment, Literacy, Bank Sampah, Limbah Pustaka*

I. INTRODUCTION

The waste problem is an endless problem. Every day humans produce waste, both organic and inorganic waste. This waste problem also grows along with population growth, where the more people, the more amount of waste is produced. In Indonesia, the problem of waste is a problem that is quite complicated and has not been resolved properly. This can be seen from the disorganized waste disposal conditions in Indonesia, where there are still many Indonesian community who throw garbage into the river to cause problems with pollution or water pollution to the problem of flooding.

The people as a producer of waste has a major role in waste management. Acording data from the Central Statistics Agency in the 2013 Indonesian Environmental Statistics publication, states that waste generated by households cannot yet be fully transported by sanitation workers [1]. Therefore, community participation is needed in overcoming the problem of waste. One of the community involvement in waste management is the establishment of a Bank Sampah. The Ministry of Environment in the 3R

Implementation Book through the Bank Sampah said that the implementation of the waste bank is in principle one of social engineering to encourage the community to sort waste [2].

Inviting people to sort waste is difficult because it involves the habits, culture, and concern of most of the very low society. Therefore, through the Bank Sampah is one of the innovative solutions for 'invite' the community to sort waste. Bank Sampah which are one of the solutions to reduce waste have begun to be formed in various regions in Indonesia, including one of which is in Purbalingga Regency, Central Java Province.

Limbah Pustaka is one of the good solutions in overcoming the problem of waste in Purbalingga Regency. In addition to solutions to reduce waste, Limbah Pustaka also acts as a means of empowering and strengthening the economy of the local community in Muntang Village, Purbalingga Regency. In addition to helping inspire people to use and turn trash into valuables, Limbah Pustaka is also a means of education for local people to increase literacy in Muntang Village, Purbalingga Regency. Increased interest in reading or literacy in the surrounding community is also one of the goals of Limbah Pustaka.

Empowerment is one of the important issues in Indonesia given that there are still many people who have not been able to empower themselves and are far from prosperity. This is the same as literacy where literacy culture in Indonesia is still low. According to the International Student Assessment (PISA), the literacy culture of Indonesian society in 2012 was the second worst of the 65 countries studied in the world, where Indonesia ranks 64th out of 65 countries. In addition, according to UNESCO, the adult literacy rate is 65.5% in 2012.

Considering the importance of empowerment for the community as well as increasing community literacy, efforts to manage waste with the aim of empowering and increasing literacy are important to study. Moreover, Bank Sampah and Limbah Pustaka is a community that involves the community in it. Thus, efforts to empower people and increase community literacy through waste management are not only important to study but also need to be developed, so that later they can become an example or model for other

groups in Indonesia in dealing with waste problems, but they can also improve their own economy, and empower surrounding communities to increase community literacy.

II. LITERATURE REVIEW

A. Empowerment

Conceptually, community empowerment is an effort to improve the dignity of the layers of society that in their present condition are unable to escape the pitfalls of poverty and underdevelopment. Empowering means directing the condition of the community to maximize their ability to become an income through independence. The birth of the concept of empowerment as an antithesis to the development model is not pro-majority. This concept is built from the logical framework as follows:

1. That the process of centralizing power is built up from the convergence of the factors of production;
2. The convergence of the factors of production will give birth to a working society and a fringe business community;
3. Power will build buildings or knowledge systems, political systems, legal systems and ideological systems that are manipulative to strengthen legitimacy; and
4. Systematic implementation of knowledge systems, political systems, legal systems and ideologies will create two groups of people, namely empowered and impotent communities (Priyono and Pranarka, 1996) [3]

The Concept of empowerment, according to Priyono and Pranarka (1996), humans are subjects of themselves. The empowerment process that emphasizes the process of providing the ability for the community to become empowered, encourage or motivate individuals to have the ability or empowerment to determine their life choices. It was further said that empowerment must be aimed at the groups or layers of society that are lagging behind. Meanwhile, in the view of Sumodiningrat (1999), that community empowerment is an effort to make people independent through the realization of the potential abilities they have. As for community empowerment, it always involves two interrelated groups, namely the community as an empowered party and a party that puts concern as an empowering party[4].

Empowering the community needs to emphasize that community members (the community) acquire the skills, knowledge and power for those who empower and who are empowered so that they have the power to participate in social life. Empowerment does not only involve strengthening individual members of the community, but also institutions. Empowerment must instill modern cultural values such as hard work, openness, and responsibility. Empowerment focuses on the participation of citizens in the decision-making process that concerns themselves and the wider community. Empowerment can be stated that empowerment is a process and purpose. As a process, empowerment is a series of activities to strengthen the power or empowerment of weak groups in society, including individuals who experience poverty problems. One measure

of the success of empowerment is how much the level of people's participation or empowerment by the community. Empowerment needs to be done continuously through systematic stages in changing people's behavior and habits for the better.

As a goal, empowerment refers to the circumstances or results to be achieved by a social change, namely the poor who are empowered, have power or have knowledge and abilities in meeting their physical, economic and social needs, such as having self-confidence, being able to express aspirations, having a livelihood, participating in social activities, and being independent in carrying out their duties the task of his life. Understanding empowerment as a goal is often used as an indicator of the success of empowerment as a process [5]

B. Literacy

Literacy related to education, which literacy is traditionally understood as the ability to read, write and use arithmetic. The modern term of literacy has been expanded to include the ability to use language, numbers, image, computers and other basic means to understand, communicate, gain useful knowledge and use the dominant symbol system of a culture [6]. Education or literacy has a relationship with democracy and also citizenship. The relationship between education and democracy is worth more extensive treatment since an entire philosophy of democratic government has seen in increased education the spread of the basic requirement of democracy [7].

As Bryce wrote with special reference to Latin America, "education, if it does not make men good citizen, makes it at least easier for them to become so" [8]. In short that education might not be able to make someone be a good citizen, but at least with education one can learn to be a good citizen. In this case, can be said that the better level of literacy of citizen, the better he became a citizen. In other hand, Lipset stated that there is a correlation between literacy and democracy. In his article "Some Social Requisites of Democracy: Economic Development and Political Legitimacy", Lipset stated that literacy is dependent variables in the context of democracy, in addition to urbanization, media participation and political participation. In this case, according to Lipset that a state which have better or higher on literacy, urbanization, media participation and political participation, then it is likely to have high degree of democracy.

In addition, Smith also stated that the higher one's education, the more likely one is to believe in democratic values and support democratic practices [9]. All the relevant studies indicate that education is far more significant than income or occupation. Germany and France have been among the best educated nations of Europe, but this by itself clearly did not stabilize their democracies. It may be, however, that education has served to inhibit other anti-democratic forces [10]. In summary, I believe that literacy has great impact on democracy. Beside that, literacy has good position in citizenship, where literacy becomes an indicator or variables that are important in the democracy states. In digital ages, in addition to traditional literacy, digital literacy is certainly a crucial issue to the context of

digital citizenship, which means that digital literacy is necessary skills for citizen to get into the digital citizenship era.

III. METHOD

This study used qualitative research methods. Qualitative research is research that intends to understand phenomena about what is experienced by the research subject, for example behavior, perception, motivation, actions etc. holistically and by means of descriptions in the form of words and language in a particular natural context and by utilizing various scientific methods. Qualitative research methods are used to examine the condition of natural objects where the researcher is a key instrument and the results of qualitative research emphasize meaning rather than generalization.

The approach used in this research is the case study approach. The case study approach is a more suitable strategy if the main question of a research regarding "how" or "why", if the researcher has little opportunity to control the events to be investigated and when the focus of his research lies in contemporary phenomena (present) in real life context. This research was conducted in an intrinsic case study, which is research conducted to better understand a particular case. So, this case study is conducted because the researcher wants to know intrinsically about the phenomenon, order and specificity of a case. Intrinsic case study selection is done because the researcher already knows the target, topic, and case under study, and there is a certain interest in the object or case under study.

IV. DISCUSSION

A. *Increased Community Literacy through Literary Waste in Muntang Village, Purbalingga Regency*

Limbah Pustaka is part of the Pelita Library which located in Muntang Village, Purbalingga Regency. According to the founder of Limbah Pustaka, Mrs. Roro Hendarti, the purpose of establishing Limbah Pustaka is to increase interest in reading and community literacy, especially children in Muntang Village. Low literacy and uninterest in reading of the community including children in Muntang Village has made Mrs. Roro Hendarti take the initiative to establish Limbah Pustaka as a way to improve community literacy reading, especially according to her the role of the school library is still not maximal in increasing the literacy of children at school. So that the existence of Limbah Pustaka can help the community, especially children to further increase their reading interest.

Limbah Pustaka not only provides books for children and the community in Muntang Village, but also provides internet access to them. This makes not only media literacy in Limbah Pustaka, but also digital literacy. Limbah Pustaka not only takes the place of Mrs. Roro Hendarti's home as a library that holds thousands of books, ranging from school books to reading books, but also has a mobile library. This mobile library is an idea from Mrs. Roro Hendarti to facilitate introducing or encouraging the community or children to read books. This mobile library serves visitors by going around Muntang Village every day, starting at 02.00-05.00 PM, and especially for Sundays usually starting at 09.00-11.00 AM. Limbah Pustaka also organizes many

other activities, especially for children such as dance, skills or craft training to other activities which can support the skills and abilities of children and the community around Muntang Village, Purbalingga Regency.

Children in Muntang and surrounding villages can borrow to read and borrow books at the Limbah Pustaka. Management of Limbah Pustaka recommends that children can exchange recyclables as a condition to be able to access reading material. Limbah Pustaka management can also ask parents to exchange recyclables so children can read and borrow books. The existence of Limbah Pustaka is not just a library. But it became a means of spreading literacy culture for the community. By providing access to reading material and extensive internet, residents and children can be more diligent in reading. There is a transfer of literacy knowledge and culture from Literature Waste to the community. What does Limbah Pustaka do is an alternative literacy education media besides formal schools.

Limbah Pustaka that is permanent libraries and mobile libraries is managed by civil society forces. Do not depend on the state funding. The purpose of the existence of Limbah Pustaka is to provide literacy education and empower the community through the movement to care for waste management. Limbah Pustaka has run an empowerment process to improve the quality of children's literacy in Muntang Village. Spreading access to reading material is able to empower people so that they have the power to participate in social life. Empowerment with the dissemination of knowledge not only includes strengthening individual community members, but also the institutions. Empowerment through Limbah Pustaka has instilled modern cultural values such as hard work, openness, and responsibility. Empowerment focuses on the participation of citizens in the decision-making process that concerns themselves and the wider community. By increasingly diligently reading books and borrowing them from Limbah Pustaka, children can receive universal value as capital to be able to participate in future development. People and children get additional knowledge aside from government-owned formal schools.

B. *Community Empowerment through Bank Sampah in Muntang Village, Purbalingga Regency*

In development concept, Limbah Pustaka is not only aimed at increasing public literacy, but also reducing waste by the existence of a Bank Sampah program that is part of the Limbah Pustaka in Muntang Village, Purbalingga Regency. Bank Sampah is a means for the community to sort and manage their inorganic waste. In addition, the existence of a garbage bank can also raise public awareness of environmental cleanliness, and on the other hand can also improve the community's economy.

Bank Sampah is basically the depositing of garbage by the community to Mrs. Roro Hendarti as the leader and manager, in which the garbage that is deposited will be sold and the money will go into public savings. This garbage bank or garbage savings also presents several groups or community members as managers, where Mrs. Hendarti acts as the leader or main manager of the waste bank. Waste that can be deposited by the community is only limited to

inorganic waste, which is garbage that can be recycled again, whereas for organic waste, Bank Sampah cannot be deposited to garbage banks. However, according to Mrs. Roro Hendarti, it is not uncommon for people who still contribute their organic waste to the garbage bank. This makes Mrs. Roro Hendarti and the library waste management community have to sort out the waste that will be sold.

Similar to the mobile library, besides the community, Bank Sampah can also deposit waste directly, Mrs. Roro Hendarti also uses the method of picking up garbage from the community. This garbage pick-up uses an open-air motorbike as a means to collect community trash, on the other side the open-tub motor is also provided with a variety of books to be read by the community, especially children while Mrs. Roro Hendarti picks up trash from the community. So it can be said that the operation of the garbage bank and the mobile library in Mutang Village runs together. In addition to the Bank Sampah and Limbah Pustaka, Mrs. Roro Hendarti also often provides empowerment for the surrounding community such as training in sewing, cooking, training in making handicrafts from used goods and many other trainings.

In the social movement based on waste management there are two objective goals, this precisely describes Bank Sampah and Limbah Pustaka by Mrs. Roro Hendarti, which not only provides empowerment for the community through training, but on the other hand can also increase the economic improvement of the surrounding community. In addition, on the other hand it can also increase public literacy, both media literacy and digital literacy. Therefore, the existence of Bank Sampah and Limbah Pustaka is very helpful to the community not only in managing waste but also improving their economy. On the other hand, Limbah Pustaka helps increase literacy or asks people to read. Such a model is expected not only to exist in Purbalingga Regency, but also other regions in Indonesia, so that the problem of waste and public literacy can be minimized, and on the other hand can improve people's welfare.

The waste collected from the community is not entirely sold back by the Bank Sampah to large traders. The waste is reselected to produce a division of waste consisting of several types, namely plastic packaging waste, plastic bottle waste, recycled cloth waste, and heavy plastic waste. Garbage made from plastic packaging will be used by the Bank Sampah to make crafts in the form of bags, wallets, and interior displays. Crafted products made from rubbish are sought after by the wider community. The goods are of economic value. Bank Sampah has produced handicrafts on a scale home date. Utilization of waste into goods serves to become an additional core business of the bank Sampah. Management of Bank Sampah does not just hold garbage then sell it. Bank Sampah are able to provide more value to the waste.

Bank Sampah activities are able to empower the local community. Its role is able to invite the public to care about waste management. In the past, waste has become a disgusting item, it has no benefits. After being empowered by the Bank Sampah. Waste becomes an item that has value. People now pay attention to waste and it is not only thrown

to basket in front home. The community is aware that there are several types of waste that can be recycled. Waste can be turned into useful items through the ability of creative hands. Waste can bring money that can help the family's domestic income. Bank Sampah has a mobile facility to pick up and collect waste from people. Bank Sampah vehicles will drive around in the village. Bank Sampah vehicles not only collect waste, but also carry books like a mobile library (namely Limbah Pustaka). Bank Sampah empowers the community and improves the quality of citizen literacy. When a mobile vehicle has Bank Sampah until inside of the community, many people gather to exchange waste or read books.

When we conduct a community empowerment study based on the views of experts, it is evident that Bank Sampah has carried out an empowerment process based on waste management. Bank Sampah has encouraged and motivated individuals to have the ability or empowerment to determine their life choices. Managing waste as useful goods is an alternative work for the community. They like finding their own potential. Bank Sampah has community segmentation groups that can be empowered. Usually they are an economically vulnerable group that does not yet have a steady income. They are also still living below the minimum standard of 2 \$USD one day one person. After there was a program for empowerment by Bank Sampah. Community income increases. Communities become more independent without relying on help from others or expecting government assistance. The community has savings from the sale of recycled waste. The community also earns additional income from work turning trash into useful items.

As an empowerment process, activities by the garbage bank are a long and sustainable series. The Bank Sampah continues to strive to increase people's participation in the movement to manage waste. The Bank Sampah seeks to strengthen the independence of citizens from waste management. Bank Sampah are faced with the challenge of maintaining the consistency of citizens to care for waste. Bank Sampah initiated by Mrs. Roro Hendarti carried out a systematic empowerment program. The program consists of socializing the impact of plastic waste disposal, sharing knowledge on waste utilization, opening a garbage account, conducting training to make crafts, recruiting cadres of garbage banks, and producing craft materials. The process of empowerment by Bank Sampah is carried out for a long time. There are many parties involved. Empowered community groups require a long time to change awareness using waste. Changing people's mindset and behavior towards waste requires hard work. Bank Sampah and Mrs. Roro Hendarti have been running the core business for decades to encourage residents to build independence.

As a goal, empowerment by Bank Sampah has reached the stage of making an impact on society. The garbage bank has increased the people's income through garbage accounts and the sale of handicraft items. Bank Sampah has made an impact on social change in the Muntang Village community. People are increasingly concerned and do smart about waste. They do not dispose of waste made from recycled plastic. They collect waste like collecting money. Such conditions

will certainly have a wide impact on environmental preservation. Plastic waste does not end up in landfill, it is planted in the soil and causes various pollution. Plastic, cardboard, paper engineered into useful items in everyday life. Bank Sampah has moved hundreds of people to care about plastic waste. Bank Sampah has changed the economic conditions of the citizens. They are empowered, they find confidence, they explore the ability to use waste. Bank Sampah has improved the standard of living of the people. Bank Sampah until they have sufficiently achieved the goals of empowerment, namely an independent community and improved economic conditions.

V. CONCLUSION

The results of the discussion showed that activity of Bank Sampah and Limbah Pustaka in Muntang Village had an impact on community empowerment. Empowerment is done to individual and the community. The existence of a Bank Sampah is able to increase public awareness in utilizing waste into economically valuable commodities. Through the concept of waste management, the community in Muntang Village can be empowered. Waste that was once thrown away and considered trivial can now be collected and processed into a number of useful items. Waste processed products are then sold and generate profits for the community. People empowerment can be seen from the change in the pattern of utilizing waste. Bank Sampah provides knowledge and trains the ability of citizens to use waste. Furthermore, the existence of Limbah Pustaka also plays a role in improving literacy skills for groups of children in Muntang Village. Through the existence of the Pelita Library and the Mobile Library, groups of children in Muntang Village were given access to read hundreds of available books. Children are also allowed to access the internet through computers provided by the library. To be able to get access to library materials, children are advised to exchange it for recyclable waste such as plastic bottles /

cups, cardboard, or newspaper. Limbah Pustaka is able to provide alternative means for children to obtain knowledge from reliable reading sources. With the waste recycle movement, introducing the importance of literacy to children. The presence of Bank Sampah and Limbah Pustaka is proven to be able empowermen the citizens' economy and increase literacy to generations of children in village.

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