

The Effect of Rain Water Harvesting Movement on Social Care of Citizens (Case Study at Harapan Jaya Kalidoni Housing in Palembang)

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ABSTRACT

This study aims to determine the effect of rain water harvesting movement on citizens' social care. Citizen participation rain water harvesting movement, citizen social care are mutually sustainable aspects. Citizen participation in managing and preserving the environment can have a positive impact on lives of citizens, if done collectively with the awareness of each citizen. This research uses a case study method with a qualitative approach. This research was conducted at the Pesona Harapan Jaya Kalidoni Housing Complex in Palembang City. The data collection techniques used observation, interviews and document analysis. Informants in this study were 9 residents in the housing complex. The data obtained were analyzed by using data reduction techniques, data presentation, and verified by triangulation techniques and data collection techniques. The result of this research is that the rain water harvesting movement is successful in fostering social awareness of citizens based on the forms of citizen activities through the rain water harvesting movement and the strategy of the rain water harvesting movement in forming good and smart citizenship. In conclusion, rainwater harvesting is a program to overcome the problems of flooding, air quality, and drought in the city of Palembang.

Keywords: *Environment, Rain Water Harvesting, Social Concern.*

1. INTRODUCTION

The growth of modern society today has a direct influence on people's lives, especially people who currently prefer to live in housing complex areas as a result of changes in modernization and globalization. The housing complex is a building mixed with high walls and fences where there are families who live in it and carry on their lives. Besides that, in general, the housing complex is also inhabited by people with different cultural backgrounds, so that the residents keep their distance, this will reduce social awareness among the community. Attitude of caring for the environment can be seen by respecting nature by keeping it [1]. Human awareness by being part of nature is the meaning of human nature itself, this can be seen by loving the environment and nature has the attitude of society in loving life. Community involvement in running a movement has a very large influence and is a form of citizen awareness of their responsibilities in society.

Good citizens have knowledge in themselves, so that they will raise awareness to overcome the problems that exist in a society based on the knowledge, skills, and values obtained in solving these problems. The

community involved in overcoming environmental problems is an attitude of caring for the environment and part of civic education in terms of character, especially the competence of citizen attitudes (civic disposition). Communities involved in aspects of sustainable development when viewed from the perspective of social knowledge are a form of hope in realizing the aspirations of the community. Flooding is a natural disaster and has become a "subscription" to several regions in Indonesia, so that it will be detrimental to the community and a movement is needed to reduce or inhibit the occurrence of flooding. Rain water harvesting is a system for storing, intercepting, and even conveying rainwater runoff to be used in the future as an effort to conserve air for cultivation areas and to create sustainability with water management in areas such as areas [2].

One of the environmental preservation programs implemented at the Harapan Jaya Kalidoni Housing Complex in Palembang is the rainwater harvesting movement, which is a method used to overcome the problem of flooding, water drought during the dry season and the quality of clean water in the Harapan Kalidoni Housing Complex in Palembang. The rain water

harvesting movement is called the movement to harvest rainwater and is a solution in filling rainwater when the dry season comes, as well as anticipating floods and maintaining clean water quality. This movement uses the pore drum technique, which the way it works is to drain rainwater or treat rainwater, it has more residence time in the ground, so it can minimize and reduce the risk of flooding. The movement with the pore drum concept can fill an average of about 200 liters of air. The rain water harvesting movement as a solution given in overcoming floods, water crises, and low water quality by examining community interactions towards fostering social concern for citizens. The research, entitled "The Effects of Rainwater Harvesting Movement on Citizen Social Concerns" which was conducted by researchers aimed to see how the community's interaction with the rainwater movement in fostering social care for citizens.

2. THEORETICAL REVIEW

2.1 Social Concern

Humans as social beings will certainly interact with other humans. Humans who have a feeling to be responsible for the difficulties of others so that the emergence of an attitude to help overcome them is called social care. The ability to recognize and understand the emotional state of others by experiencing the emotions of others in oneself is associated with a tendency to engage in behaviors to help real life. Meanwhile, according to [3] views caring as a process of helping others in their "own rights". Helping behavior can be characterized by a tendency towards empathic caring, deep personal values and a focus on internal control. Social care can be realized if there is an action and interaction between many people with other communities which is an expression of self to help each other. Caring as a medium of relationship that is expressed in the presence of an action and interaction between humans [4].

Citizen involvement can be interpreted as individual participation in the public sphere which aims to carry out a renewal and development that exists within the community itself [5]. Explained that caring stems from the existence of a will in a person, the will that will cause the encouragement of caring and life force is the source. Caring attitude is an event of human existence that is in him, meaning that if we do not care about others, we will lose our personality [6]. Caring is a feeling that is given to others and motivates to provide strength in action and to increase the actualization and closeness of fellow human beings. Furthermore, Leininger (1981) explains that there are four stages of caring, namely attachment, assistance, intimacy, and confirmation. From these several stages, it can be obtained by doing the task well, so that the attitude of caring cannot be achieved or implemented if one of the stages has not been fulfilled.

2.2 Rain Water Harvesting

Rain water harvesting is a method that can provide great benefits in a sustainable manner for future generations in the long term for people's lives, if there is a problem of water scarcity or abundant water supply. Rain water harvesting provides a strategic offering for areas that have inadequate water supplies, lack of water resources, or are in poor condition. Rain water harvesting technique is an adaptation and mitigation strategy in tackling anthropic impacts and climate change which is a priority to reduce flooding in dry and semi-arid prone areas [7]. The rain water harvesting system has a role in collecting rainwater from the roof and other areas. The system uses gutters and pipes to carry water to the reservoir storage tank. Pipes and gutters are made of wood, bamboo, galvanized iron sheet or PVC.

Rainwater harvesting techniques are defined as techniques or ways to accommodate and collect rainwater, and surface runoff when rainfall is high and then used when rainwater is low [8]. Rainwater harvesting or RWH is a technique for storing and collecting rainwater when it falls on buildings, onto the ground, and into the field during the rainy season, which is used for water use and for outdoor and indoor activities. Rain water harvesting provides a strategic offer for areas that have insufficient air supply, lack of air resources, or are not in good condition. According to [9] the benefits of harvesting rainwater are as follows:

- a. Provide self-sufficiency for air supply on the verge of developing countries and developed countries with major supplies.
- b. Reduces excessive pumping and cost overruns of groundwater
- c. Urban air harvesting systems provide significant benefits in air supply by reducing the need for clean water in air distribution systems.
- d. Air quality with fresh water rainwater runoff patterns.
- e. Rain water harvesting system can be used as a simple and effective method in reducing soil erosion, flooding and air safety
- f. A good source of air for plants and irrigation systems, because it does not contain chemicals such as fluoride and chloride
- g. Rainwater harvesting helps for overall RWH awareness.

3. METHOD

This research applies a case study method as one of the methods of a qualitative approach. The researcher took the qualitative paradigm in this study, because he wanted to examine more deeply the effect of the rain

water harvesting movement on the social care of citizens in Harapan Jaya Kalidoni Housing, Palembang. The main informant of this research is Very as the head of the Pesona Harapan Jaya Housing RT Kalidoni Palembang. In addition to Very as a key informant, other informants needed in the research are people who feel the direct impact of the rain water harvesting movement, as well as dig up information about the impact of the rain water harvesting movement in growing citizens' social awareness. Data collection techniques used participatory observation with direct data to the research site, in-depth interviews with unstructured techniques, and document analysis in the form of agenda notes, letters, conclusions and other written event reports during the research. The analysis technique used is an interactive data analysis technique which consists of 4 stages, namely 1) data collection, 2) data reduction, 3) data presentation, and 4) conclusion drawing.

4. RESULT AND DISCUSSION

4.1 Citizens' Social Concern for Citizenship Education through the Rain Water Harvesting Movement

Social care is an attitude and action that is very important and needs to be improved in order to foster an attitude of mutual help among others. Social care is maintaining relationships with others that start from feelings and are shown by actions such as caring for others, being compassionate and helping. However, at this time it is very difficult to find a caring attitude among residents in the housing complex, who usually seem to often shut themselves off, due to the different cultural cultures of the residents that make residents become human beings who have individual attitudes. Thus the attitude of individualism is very dangerous to the life of people in a country, namely Indonesian society, so that character values are needed in citizens [10]. It is feared that individual attitudes will affect their social development. Caring is making ourselves related to other people and whatever happens to that person. People who put the needs and feelings of others ahead of their own interests are people who care. If the weakness of social care in a society today has become a very important problem at this time, as a manifestation of non-compliance with the mandate of Pancasila and the Preamble of the 1945 Constitution.

This shift makes it unacceptable by other communities who hold social values, especially concern for the environment. [1] caring attitude towards the environment can be seen with an appreciation for nature by keeping it. Human awareness by being part of nature is the meaning of human nature itself, this can be seen by loving the environment and nature accompanied by the attitude of the community in loving their life. Rain water harvesting is a movement to care for the environment in

dealing with floods, rainwater drought and water quality. The Pesona Harapan Jaya housing complex is a complex that implements the rain water harvesting movement in overcoming an environmental problem in the housing complex, through this movement many residents are involved and participate, so that the problems of flooding, rainwater drought and well water quality in the housing complex can be overcome. The rain water harvesting movement provides direction and education in environmental management by inviting residents to be directly involved and participate. The strategies for the rain water harvesting movement include: 1. Providing appeals and invitations to residents; 2. Provide examples and guidance in carrying out the rain water harvesting movement. 3. Supervise the movements carried out by residents.

4.2 Forms of Rain Water Harvesting Movement Activities in fostering Citizen Social Care

Activities to foster citizens' social awareness and environmental awareness are carried out by carrying out the rain water harvesting movement in which the movement makes citizens directly involved and participate in achieving the desired goals and in a broader scope. The involvement of citizens in community problems is a milestone for the real practice of Pancasila values. People who have a sense of care and love for their homeland will try to participate and be involved in caring for the environment and their place of residence as well as on other issues. This is in line with [11] statement regarding Civic Engagement, which is one of the main concepts in Civic Community which emphasizes the involvement of citizens in various aspects of life. Referring to this opinion, the social education approach is one that sees society as both an agent and an object. In this process, community leaders need to position themselves as facilitators who encourage change for the better [12].

The rain water harvesting movement carried out by residents in the housing complex of Pesona Harapan Jaya Kalidoni, Palembang City is the process of conveying, storing and intercepting the overflow of rainwater which is used in the future in maintaining water conservation in cultivation areas and creating sustainable water management in urban areas [2]. Rain water harvesting as an alternative source of water in tackling clean water supply efforts by increasing public awareness in the use of ground and surface water, so that people must be involved in conserving water resources by utilizing rain water. So that residents in the Pesona Harapan Jaya Kalidoni housing complex, Palembang City, the need for citizen involvement in a community is an action where individuals participate in private and public care activities that individually enrich each other and are socially beneficial for the community [13].

Utilization of rain water can also be said to be a process or activity of using, collecting, and absorbing rainwater into the ground. The technique of the rain water harvesting movement is an adaptation and mitigation strategy in overcoming anthropic impacts and climate change which is a priority to reduce flooding in arid and semi-arid prone areas [7]. This is in line with what Very persistent in carrying out the rain water harvesting movement and inviting residents to be involved in the movement. For him, as a citizen he is obliged to take part in protecting his environment. With this persistence, gradually this individual concern has developed into the concern of groups engaged in the environmental sector. In a community group or institution, high sensitivity to the problems faced by the community and flexibility in approaching is needed [14]. By inviting residents to get involved in the rain water harvesting movement.

The strategy undertaken by Very is to invite residents to be involved in the rain water harvesting movement, namely by providing an example of the success made by Acep as one of the residents who has successfully practiced the rain water harvesting movement based on the knowledge and skills obtained through searching on google and youtube. , invite the residents well, give advice, provide direction and monitoring and show tangible results in the form of positive impacts that will be obtained from the rain water harvesting movement. So that this will attract the sympathy of the residents to get involved in the rain water harvesting movement. This is to make citizens ecological through an indirect emotional approach to the participants [15]. This is intended to arouse a sense of public concern about the environment in a good way and not by force.

Environmental management is an investment that is useful not only for individuals or individuals, but also an investment for the community which in fact can make a substantial contribution to a better life in the future. This, it can be concluded directly that the educational process in society, especially in environmental management is closely related to a concept called human capital, which is a combination of knowledge, skills, innovation and a person's ability to carry out their duties so that they can create value to achieve goals.

4.3 Results of the Rain Water Harversiting Movement in Fostering Citizen Social Care

The rain water harversiting movement is a movement carried out by residents who live in the Pesona Harapan Kalidoni housing complex, Palembang City which is oriented towards environmental conservation. In an environmental preservation, a citizen effort is needed to make it happen. This can be started with education and appeal to citizens to be aware of their obligations as citizens for the sustainability of their environment. Based on the statement of [16] education regarding

environmental awareness can be taught to foster the attitude of citizens in their love for the environment. It can be said that citizens who have an attitude of loving their environment by managing their surrounding environment properly are citizens who have awareness of the environment. Therefore the importance of the participation of citizens in environmental management. Residents will think about the positive impact on their lives in the future and the benefits for their lives in the future.

A good citizen will have some knowledge in him, so that it will raise awareness of the problems that exist in a society based on the knowledge, skills and values they have acquired, so that the community will be involved to solve a problem in their environment. People who are involved in overcoming an environmental problem are a caring attitude towards the environment and part of civic education in terms of character, especially the competence of citizens' attitudes (civic disposition). People who are involved in the aspect of sustainable development from the perspective of social knowledge are a form of hope in realizing the aspirations of society. citizens with knowledge, skills, and values who can perform their functions and roles as citizens based on the theories they have acquired [17]. Community involvement has an important role in the creation of a safe environment in environmental management, implementation and monitoring [18].

Rainwater harvesting management and utilization through the rainwater harvesting movement is one of the solutions to reduce runoff, as well as the burden of using PDAM and using ground water (well water). Palembang City has an annual rainfall of 2500-2600mm which is estimated to be able to meet the potable water needs of up to 2 residents [19]. South Sumatra is ranked 26th out of 33 provinces for easy access to clean household water. Access to clean water in cities in Indonesia has decreased from 63% in 2007 to 28% in 2010. By looking at these conditions, it is necessary to have a movement that can be carried out by the community in improving the quality of rain water by having a program, namely rain water harversiting, which is a program to overcome the problems of flooding, water quality, and drought in the city of Palembang [19].

The rain water harversiting movement that is implemented in the Pesona Harapan Jaya housing complex has succeeded in shaping residents to be better again by becoming citizens who have a social concern for residents in overcoming a problem in the housing complex. Problems in the housing complex, namely: flooding, water dryness rain, poor water quality, littering. By looking at these problems, the need for citizenship education in a broader sense is better known as citizenship education or education for citizenship, which

is citizenship education in informal and non-formal forms, namely programs outside of schools that emphasize the involvement and participation of state citizens in social issues [17].

Residents in the Pesona Harapan Jaya Kalidoni housing complex, Palembang City, have succeeded in becoming good citizens by changing their behavior and resolving environmental problems. This is in line with the objectives of civic education. The main objective of civic education is to prepare a good citizen [20]. Good citizens are individuals who understand and can exercise their rights and obligations as members of society and are able to participate well in society [21].

5. CONCLUSION

Rainwater harvesting management and utilization through rainwater harvesting is one of the solutions to reduce runoff, as well as the burden of PDAM accumulation and use of ground water (well water). By looking at these conditions, it is necessary to have a movement that can be carried out by the community in improving the quality of rain water by having a program, namely rain water harvesting, which is a program to overcome the problems of flooding, water quality and drought in the city of Palembang. Citizen participation or voluntary involvement of citizens in environmental affairs is needed. Social behavior is considered as a result of behavior that is driven not only by social relationships but is encouraged because of the attachment to the surrounding environment, the bond between a person and the environment or the degree to which a person considers the environment as one's own home. Very as the chairman of RT 50 in the Pesona Harapan Jaya Kalidoni housing complex, Palembang City who has a charismatic as a leader, can provide a change and can provide a change and can influence the good, be a role model, innovative, creative, and can motivate citizens to participate and participate in the rain water harvesting movement in fostering social care attitudes of citizens.

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