

# Building Ecological Citizens Through the Implementation of Climate Village Programs as Climate Change Mitigation Effort

Dewi Gunawati<sup>1</sup> & Triana Rejekiningsih<sup>2</sup>

<sup>1</sup>Pancasila and Civic Education Program, Teacher and Training Education Faculty, Sebelas Maret University, <sup>2</sup>Pancasila and Civic Education Program, Teacher and Training Education Faculty<sup>2</sup>

dewigunawatiuns@yahoo.co.id, & triana\_rizq@staff.uns.ac.id

**Abstract:** This paper goes from environmental conditions that have decreased quality. The research purpose is to understand obstacles in the implementation of Climate Village Program (Proklam) in Surakarta. One of the programs initiated by the government is the Climate Village Program (Proklam) which is prepared based on the regulation of the Minister of Environment and Forestry Republic of Indonesia number P. 84/MENLHK-SETJEN/KUM. 1/11/2016. Methods used in this research are qualitative, descriptive type, evaluative, comparison, and case studies. Data collection methods: Document study, observation of Proklam, and interview to the key person and FGD with related informant. The location to conduct this research was in Surakarta, while samples used is in the village that has been implementing the Climate Village program, which is :Sondakan Village RW 14, KelurahanKadipiro RW 09 and RW 23, KelurahanKestalan RW 06, KelurahanMojosongo RW 37 and KelurahanJoyoatan. These sub villages are vulnerable to the climate change impact, especially flood. Research results: the climate farm program implementation is experiencing some obstacles: a). There are issues related to lack of public understanding of climate change mitigation efforts, B) less optimal government (Environment Agency) in socializing climate farm programs to communities that are vulnerable to the impact of change The quality of institutional coordination that contributes to the Climate Village programimplementation, c) lack of public awareness of the intimacy of protection and environmental management that seems to be in the implementation of the In some villages that become pilot projects.

**Keywords:** *coordination, climate change program, environment*

## INTRODUCTION

‘The problem of the quality of life is a multidimensional and complex issue (Keles, 2012). One of the dimensions that can be felt now is the phenomenon of environmental damage. Warm environmental damage is discussed in public discourse and policy.

Climate change is one form of environmental damage that is a threat to wildlife, humans and the environment (Villagran, Weathers, Keefe, & Sparks, 2010). Climate change, which will have wide-ranging, and mostly adverse, impacts on many natural and human-made systems and constructs. Of particular concern are the risks posed to Earth's life-supporting geophysical processes and ecological systems and processes (Tong & McMichael, 2013). Environmental damage is caused by a consumptive pattern applied in developed countries that has a real impact on the environment (Evans, 2011). “The relationship between the quality of life and the environment has become an important subject for study for the last several decades.” (Keles, 2012). Efforts can be made to overcome sustainable consumptive patterns through the alteration of the consumptive lifestyle done in everyday life (Evans, 2011).

A consumptive pattern affecting environmental damage is a study of ecological citizenship. From this perspective, ecological citizenship education seeks to liberate human and nonhuman beings from predetermined behavioral results and functions, and opens the time and space for the

subjectification of human and nonhuman citizens within the complex dynamics of a multi-species community (Spannring, 2019). Ecological citizenship is interpreted as an idea of the ethical and moral way of citizens to its environment through responsibility to protect, manage and preserve the environment (Mariyani, 2017)

Ecological citizenship', as an emerging dimension of sustainable urbanism, is an under-researched concept within environmental planning and policy agendas (Asilsoy & Oktay, 2018). One entry point is the concept of ecological citizenship, which emphasizes responsibility, community, and care. However, the discourse of ecological citizenship often reduces the human subject to a critical consumer-citizen and citizenship education to the production of such a subject (Spannring, 2019)

This research was motivated by: 1) Empirical conditions for environmental damage caused by the effects of climate change, 2) Efforts to anticipate the effects of climate change that are not optimal, 3). Low community awareness and commitment to protect and manage the environment. This study aims to determine the problems in the application of climate village programs implemented so far as an effort to build ecological citizens.

The Ministry of Environment establishes three main performance index points for achieving the program which include: 1). Decreasing of environmental pollution load, 2). Increasing control of environmental damage, 3). Increasing of institutional capacity. One of the programs being promoted is the climate village program. This is the same type as the REDD + program. Proklam, which is based on the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.84/MENLHK-SETJEN/KUM.1/11/2016 which is in accordance with the mandate of the Ministry of Environment and Forestry Number.33/2016 about the Guidelines for Preparing a Climate Change Adaptation Plan. The Ministerial Regulation supports the formation of synchronization, coordination and program coherence between policy makers, stakeholders, and the community.

Mariyani's research (2017) Strategy for the formation of ecological citizenship focused on the urgency of building a comprehensive understanding of the importance of ecological citizenship education as a way to overcome environmental damage. The focal point of writing about ecological citizenship as a strategy that relies on elements: 1) The base of the sector is ecoliteracy that is implemented in and outside the class, community base through the environmental community, workshops on the importance of environmental conservation, and training on environmentally friendly environmental management (Mariyani, 2017).

Anantaraman research on community involvement in home waste management that is based on the environmental coordination is a strategy to change the behavior of the environment. Environmental coordination involves environmentally conscious, household and waste workers This is an embodiment of the ecological citizenship theory conducted in Bangalore India through a middle-class socio-economic network. (Anantharaman, 2014).

The urgency of this research is to find out the problems in the application of climate village programs that have existed as an effort to mitigate the impact of climate change in Indonesia. This effort, at the same time, is an evaluation and recommendation for stakeholders related to the implementation of climate village programs towards improving the implementation of programs that have an impact on optimizing climate change mitigation efforts to maintain sustainable environmental functions. Sustainable environmental functions are realized through optimizing the implementation of responsive Proklam as a opening-vehicle into people's insight regarding the importance of climate change communication, information and mitigation education through the application of Proklam. Hence, it is able to build ecological citizens as a form of concern for climate change.

## RESEARCH METHODS

Qualitative approach, type of descriptive, evaluative, and case study research. Type of description: Describing the conditions and situations for implementing climate programs in Surakarta. Policy research is research that explores the application of climate policies implemented. Case study approach: probing Proklam applied in Surakarta. The object of the research is Communities that implement the climate village program and the implementation of the climate program is the subject of the research. The research location for this study includes: a). Villages that have implemented the Climate Village program in Surakarta City, namely Kadipiro Village, Sondakan Village RW 5 Sondakan Village, Kestalan Village, and Mojoso Village. 2). Surakarta City Environmental Agency. The methods of data collection were observation, documentation, and interviews.

The number of respondents interviewed in this study was determined by selecting people who had knowledge and understanding of the Proklam program, which resulted in a total of 20 respondents. The reason for choosing these villages is the appointment of the Environmental Agency based on the region's vulnerability to natural disasters and community culture towards climate change mitigation programs. Each respondent was guided throughout the process of making an appraisal of the implementation of the PROKLIM program. It refers to these 3 principles: free, prior, and informed consent at every program implementation stage. It includes the per-conditioning stage, the implementation stage, and the evaluation stage. Data sources included: 1) Policy makers and stakeholders Environmental Services Surakarta Office: Head of the Office, functional staff, ; Interviews with policy makers at the Surakarta Environment Office, administrators of the climate village program, and communities involved in the climate village program. Observing at the condition of the existing village that runs the climate village program. Recording the progress that has been made during the climate village program. Respondents were given the chance to express their thoughts, feelings, views, and perception freely, without being regulated strictly by the researchers. In addition, to collect data through interviews, which were directed towards discovering the experiences and implementation of the Proklam program, additional data was collected from previous research studies, national park reports, and literature related to the PROKLIM implementation in other locations in Indonesia and other countries, in order to support the study. The technique for analyzing the data was an interactive data technique. It was comprising three steps: data reduction, data display, and data verification.

## RESULTS OF THE RESEARCH AND DISCUSSION

### *Problems in Implementing a climate village program in Surakarta as a climate change mitigation effort*

Damage to the environment in the form of natural disasters. The natural disasters that occur are associated with community resilience. Studies on this matter can be applied in various types of society. Research Rapaport describes that rural society is a society that has high endurance factor while the urban community is low vulnerable level. The research examines that the village is a strong purifier of community resilience, as well as a sociodemographic category: becoming older, fairly or higher income and more religious. Rural communities translate their strong social resources into perceived resilience (Rapaport et al., 2018).

The application of PROKLIM in Surakarta began in 2014 until today. Proklam includes various activities, namely: a) Climate change adaptation activities that include: control of

drought, floods and landslides, increased food security, handling or anticipation of sea level rise, tidal flooding, seawater intrusion, abrasion or erosion due to wind, high waves. b) Climate change mitigation activities include: waste and solid waste management, processing and utilization of liquid waste, the use of new and renewable energy, as well as energy conservation, management of agricultural cultivation. Requirements in applying Proklam are the existence of community groups and ongoing support which includes the management component; organizational structure; work plan or program; regeneration rules and systems; policy support and community dynamics; government involvement; development of activities and benefits obtained. The purpose of implementing Proklam is to create a clean, healthy and comfortable environment till it guarantees the survival of the residents. Proklam activities are socialization, guidance and empowerment of citizens to care about the environment. Coaching and empowerment are manifested in the form of making bio pore and vegetable crops planting. Products produced from the climate village program include: Compost products, vegetable plant seed products, processed food products in the form of vegetable chips, garbage bank crafts. The facilities provided by the Environmental Service to support the implementation of the program are providing drum composers, trash cans, water tendons, infiltration, solar panel lights, and vertical garden. In Mojosongo, a vegetable village has been initiated which aims to fulfill family nutrition, which, if improved, will have an impact on people's welfare. The assistance from the Environmental Agency regarding the greening program is the provision of hard tree seeds such as longan and mango. The purpose of Proklam implementation is disaster mitigation, in the form of information communication and education about disaster mitigation, the community must have awareness to manage the environment which is a manifestation of disaster response. The beginning of the climate village program implementation promoted by the Environmental Agency was based on observations/surveys by the Environmental Agency on social, economic, and disaster vulnerability situations. The appointment of the village as a pilot project program is the authority of the environmental institution which is the leading project and the initiator of the program being run.

### *Proklam Program Planning Phase*

Macro program implementation of climate villages is top down. It is characterized by an initiation program from the center, subordinates: the community or target group, is the object in charge of running the program that has been initiated. The appointment of the location of the program implementation is also based on the appointment by the central government or the Environmental Agency. Some regions were selected as program implementation locations based on the level of vulnerability of areas prone to disasters (Kestalan Village, Joyontakan), but there are some villages that are not vulnerable to disasters, community care has been formed (Mojosongo village, Kadipiro). **This phase begins based on** an invitation from the Environmental Service after being responded to by the community, then, a committee was formed to run the climate village program. Some villages are enthusiastic to accept the invitation of the Environment Agency but there are also those who do not respond. Proklam implementation arrangements consist of community elements, community leaders, and village officials, who hold monthly meetings to discuss matters that need to be addressed.

### *Program Implementation Phase*

In the program implementation phase, the community is treated as an object that participates in Proklam activities. The weaknesses in this phase are: 1). DLH is less intensive in socializing

Proklím as an information and education for community members. It has an impact on people who lack understanding regarding program, objectives and program orientation. The lack of understanding about the Proklím program is due to the poor communication on the program in a manner that are equal, complete, accurate, and comprehensive to all policy makers and members of the community. The lack of information provided will result in ineffective implementation of the program. The perception of the essence, principles, and implementation of the Proklím program in the field, was developed by policy makers. The factors influencing the formation of ecological citizens are the half-hearted role of government in encouraging citizens to become "good citizens" without explaining their role as a ecological citizen (Mariyani, 2017).

The understanding of the community about Proklím is only limited to a discourse that has not been able to be planted, this is also caused by a lack of awareness of the people who do not fully want to know about environmental protection and management efforts. Activities carried out in Proklím are incidental. DLH does not submit the full implementation of the program to the community. More socialization focused on appeals to participate in the program. Community activities are carried out intensively only when there is a competition. The community is moved if there are instructions from DLH or related Provincial Environmental Service to be included in the competition so that the community starts preparing all their needs in preparation for the competition. However, after the competition was over, there was no follow up activity. This condition is termed in Javanese as "obor-obor blarak" (lights in only at the beginning). The above phenomenon explains that the concept of ecology of citizenship Ununderstood and executed properly. Ecology Citizenship is 'as an emerging dimension of sustainable urbanism, is an under-researched concept within environmental planning and policy agendas.' (Asilsoy & Oktay, 2018).

The concept base of ecological citizenship is responsibility, society, and concrete action (Spannring, 2019). However, the discourse of ecological citizenship often reduces the human subject to a critical consumer-citizen and citizenship education to the production of such a subject (Spannring, 2019).

2) DLH lacks intense communication with the community. Citizens communicate with DLH only if there is a problem related to the assistance provided by the DLH, for example, the problem related to the dead solar cell continues to be reported by residents to DLH, but until now it has not been responded. At the beginning of the program there was assistance and control. However, then it stops. 3). The lack of intensive program assistance has an impact on community confusion which has an impact on the implementation of programs that are less efficient, effective, and unsustainable. Communication participation can be done in various policy areas. One of them is policy of development. The Policy of development in Indonesia can be shown in various programs. One of which is the development that specifically leads to the effort of handling the environment (ecology). Community participation in dealing with various environment issues in civic science is termed as ecological citizenship. (4) The climate village program is "apparent death" because there is no sustainability. The community has not been able to understand the nature of environmental management properly. The community has not found the benefits of the program being implemented but the program is already over.

The success of climate change mitigation efforts is actively involved in the involvement and active participation of various parties, including policymakers, industry and governments and communities with regard to varying local opportunities and threats. Successful climate change mitigation efforts based in Qatar state by considering environmental risk factors, socio-economic and vulnerability including risk of land loss, marine environmental damage, some health risks or costs Long-term adaptation (Fragu, Finley, Bagchi, & Al-Qadi, 2009).

The implementation of a climate village is less effective because: 1). Limited human resources, 2). Lack of public awareness. Barr explained that the research on environmental behavior is related to the two elements that affect: (1) daily habits manifested in the form of action or called Consumption Behaviour) and (2) The mirroring of behaviors that live in Community that forms a lifestyle group (Barr & Gilg, 2006).

(3) the absence of the implementation evaluation of existing programs has an impact on the lack of accurate data and the absence of constructive input on the programs that have been implemented. Responsive program evaluation can be carried out in the planning, implementation and post-implementation phases. The effectiveness criteria for Proklim success are based on the following indicators: 1). The establishment of community institutions as a forum for participatory village planning, that in the implementation of the climate program implemented since 2014-2017 an institution has been formed in the implementation of climate, but at the empirical level of institutions, it has not yet functioned as a participatory forum for village program planning. The institutional function is only as a motivator, the environmental spokesman who provides a positive influence in establishing positive interactions among community members.

The above Ilustasi has not been to reflect the implementation of ecological citizenship which is imprinted on equal relationship among community members so that it will be reflected commitment, responsibility for its duties and obligations. The implementation of the responsive-oriented citizenship concept will be able to prevent the impact of environmental damage. The outcome of the application of Proklim in the form of counseling or socialization related to climate change mitigation efforts has not been able to shape the community to be aware and act actively in environmental management. Benefit: Proklim is only enjoyed by a handful of people who truly respond to climate change mitigation efforts through intense implementation, while almost part of the community still does not have full awareness to be willing to manage the environment sustainably. The community does not yet have a concern for the program that DLH has initiated. This can be found based on observations of various DLH remains in a climate village that is not well managed by the community such as: greening and solar lights.

Ideal PROKLIM should be able to foster good communication, information and education for the community towards climate change mitigation efforts in a sustainable manner. However, in reality it is not. Dobson explicitly explained that ecological citizenship deals with the responsibilities of citizens and environment rights within certain limits.

The results of the study showed that The implementation of the REDD+ program is the same as the Proklim Program. REDD + Program is not effective yet due to: a). poor vertical and horizontal coordination between stakeholders, different ideas about the essence, principles, and implementation of the program, b) lack of response from stakeholders towards the implementation of the REDD+ program, c) failure to execute policies due to a lack of norms, instructions, and supporting institutions for the program implementation, d). The implementation of the program is affected by the decision making, the way in which policy makers understand and respond, institutional performance, e). limited involvement of the community and stakeholders, resulting in insufficient representation, and inequality in program implementation. (Gunawati, 2018).

The challenges faced in the implementation of the PROKLIM program as a learning program are : a). How to improve institutional integration through coordination between institutions in order to develop the substantial active participation of institutions in the planning, implementation, and evaluation of the program; b). How to guarantee fair and equal

communication in relation to work methods, risks, rights and obligations, and responsibilities in the program (Gunawati, 2019);

Low public awareness in managing the environment for lack of *capacity building* meaningful in building people's abilities, including knowledge, skills, awareness, commitment, perseverance, and motivation. Based on the application evaluation of Proklm, the efforts that can be made to build an ecological citizen can be done as an effort to build the capacity of the community through :i) Strengthening human resources through strengthening community institutions to have independence so that it will improve the quality of community resources. The community will be able to participate through groups and institutional access, ii) Increasing capacity of the community to manage and utilize forest resources optimally and sequentially in environmental conservation, iii). Developing partnerships with related institutions in supporting community empowerment. (2) *Cultural change* which takes sides with the community (3) *Structural adjustment* who sided with the community or interpreted as structural adjustments that sided with the community. Strengthening community participation as a form of ecological citizen can be carried out through the following steps: a).Identifying the potential of the local community, b) building a simple community organization, flexible, and sustainable; c). Improving specific abilities and people's understanding of their specific potential, d).Carefully preparing the introduction of the condition of society in general and minimize negative external influences, e) communicating and educating on information tailored to the needs of the community.

## CONCLUSION

The implementation of the climate village program implemented in villages in Surakarta has not been effective as a comprehensive effort in building ecological citizens. The problem in the application of Proklm is that the community does not yet have concern for climate as a sustainable climate change mitigation effort. Because Proklm are "apparent death", the community has not been able to understand the nature of environmental management properly. The community has not found the benefits of the program being implemented. Low public awareness in managing the environment for lack of *capacity building* meaningful in building people's abilities, including knowledge, skills, awareness, commitment, perseverance, and motivation. Based on the application evaluation of Proklm, the efforts that can be made to build an ecological citizen can be done as an effort to build the capacity of the community through :(1) *Cultural change* which takes sides with the community (2)*Structural adjustment* who sided with the community or interpreted as structural adjustments that sided with the community.

## BIBLIOGRAPHY

- Anantharaman, M. (2014). Networked ecological citizenship, the new middle classes and the provisioning of sustainable waste management in Bangalore, India. *Journal of Cleaner Production*, 63, 173–183. <https://doi.org/10.1016/J.JCLEPRO.2013.08.041>
- Asilsoy, B., & Oktay, D. (2018). Exploring environmental behaviour as the major determinant of ecological citizenship. *Sustainable Cities and Society*, 39, 765–771. <https://doi.org/10.1016/J.SCS.2018.02.036>
- Barr, S., & Gilg, A. (2006). Sustainable lifestyles: Framing environmental action in and around the home. *Geoforum*, 37(6), 906–920. <https://doi.org/10.1016/J.GEOFORUM.2006.05.002>
- Evans, D. (2011). Consuming conventions: sustainable consumption, ecological citizenship and

- the worlds of worth. *Journal of Rural Studies*, 27(2), 109–115.  
<https://doi.org/10.1016/j.jrurstud.2011.02.002>
- Fragu, L., Finley, M., Bagchi, N., & Al-Qadi, M. (2009). A review of climate change regulatory framework, and applications in Qatar with special references to RasGas' facilities. *7th DOHA Natural Gas Conference (Doha, Qatar, 3/9-12/2009) Presentations*.
- Gunawati, D. (2018). An empirical reflection on the implementation of the REDD+ program to reduce emissions from deforestation as a learning program. *Malaysian Forester*, 81(1), 100–113.
- Gunawati, D. (2019). Empirical Reflection on the Implementation Effectiveness of Community Empowerment Program in Mount Merbabu National Park. *International Journal of Recent Technology and Engineering (IJRTE)*, 7(6S5), 928–934.
- Keles, R. (2012). The Quality of Life and the Environment. *Procedia - Social and Behavioral Sciences*, 35, 23–32. <https://doi.org/10.1016/J.SBSPRO.2012.02.059>
- Mariyani. (2017). Strategi Pembentukan Kewarganegaraan Ekologis. *Prosiding Konferensi Nasional Kewarganegaraan III*, 10–17.
- Rapaport, C., Hornik-Lurie, T., Cohen, O., Lahad, M., Leykin, D., & Aharonson-Daniel, L. (2018). The relationship between community type and community resilience. *International Journal of Disaster Risk Reduction*, 31, 470–477.  
<https://doi.org/10.1016/J.IJDRR.2018.05.020>
- Spannring, R. (2019). Ecological citizenship education and the consumption of animal subjectivity. *Education Sciences*, 9(1). <https://doi.org/10.3390/educsci9010041>
- Tong, S., & McMichael, A. J. (2013). Reference Module in Earth Systems and Environmental Sciences. In *Reference Module in Earth Systems and Environmental Sciences*.  
<https://doi.org/10.1016/B978-0-12-409548-9.01752-8>
- Villagran, M., Weathers, M., Keefe, B., & Sparks, L. (2010). Medical providers as global warming and climate change health educators: A health literacy approach. *Communication Education*. <https://doi.org/10.1080/03634521003624049>