

Dwelling and the Environment: Community-Based Adaptation and Mitigation to Climate Change

Samsu Hendra Siwi¹ and Mekar Sari Suteja²

¹ Department of Architecture, Universitas Tarumanagara, Indonesia

² Department of Architecture, Universitas Tarumanagara, Indonesia

Email address of corresponding author: samsus@ft.untar.ac.id

ABSTRACT

The energy crisis, food crisis, and clean water have been felt as a result of climate change. The community and the government are trying to take steps to mitigate the impacts of climate change through various such as public awareness, education, and community and government programs. How does the community implement adaptation and mitigation programs from the architectural aspect to climate change in their environment? The purpose of this research is to know about the community's activity in adaptation practices in their environment in urban housing with everyday life to the issue of climate change. The phenomenological method is used by taking the location of RW 11 Pekayon Jaya Bekasi. The everyday life theory lens comprehensively analyzes people's daily lives in adapting to and mitigating climate change. The results of this study serve as an evaluation material for implementing adaptation efforts to climate change in the urban environment.

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Keywords: Dwelling, environment, community, adaptation, climate change

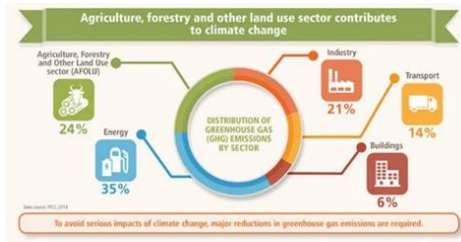
1. Introduction

Climate change is a very relevant issue throughout human life itself. Climate change is related to many aspects of life. The impact of climate change affects how humans must survive and mitigate climate change itself. The impact of climate change has now spread throughout the world, causing various crises such as the energy crisis, clean water crisis, food crisis, and even the decline in the quality of life of living things. Factors that make climate change very complex from small scale to global scale. From individual behavior to international policies are factors that cause global climate change.

The energy crisis, food crisis, and clean water have been felt. The community and the government are trying to take steps to mitigate these impacts in various ways. Education, community-based awareness, and government programs also carry out awareness of the community.

The Directorate General of Climate Change Control-Ministry of Environment and Forestry explained that climate change is causing significant changes in air temperature and rainfall. This changes the human living space[1]. The existence of disasters due to climate change cannot be avoided[2]. Environmental experts argue that climate change occurs due to increasing concentrations of CO₂ and other atmospheric gases. The

increase in these gases impacts human activities because the production and consumption processes are related to nature. These gases then cause the greenhouse effect. There are many causes of the greenhouse effect. Greenhouse gases will be generated due to daily human activities such as using electrical energy, motor vehicles, factory operations, burning waste, and food consumption. Food consumption contributes significantly to climate change. The process of food production, food consumption, and the resulting waste are contributors to climate change. Agriculture with pesticides, food processing with a manufacturing system (which requires energy to process it), meat from livestock with animal waste that produces methane gas, and rotting food waste that produces methane gas [3]. The real greenhouse effect, if not excessive, is needed by life on this earth. This is necessary to maintain the earth's temperature so that it is not too large between the temperature of the day and night, so that life on earth can still take place properly [4].

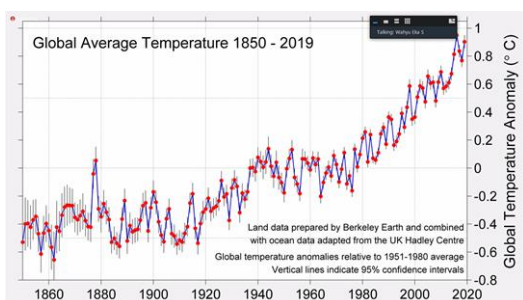


Source: (Kementerian Lingkungan Hidup Dan Kehutanan Direktorat Jenderal Pengendalian Perubahan Iklim Desember 2017)

Figure 1: Climate Change Is Influenced By Various Sectors

Climate change is influenced by various sectors, including the agricultural sector 24%; energy 35%; building 6%; industry 21% and transportation 14%. It looks like buildings account for 6% of climate change. When viewed, the percentage of 6% is relatively small compared to other sectors, but other sectors cannot be separated from other sectors. We cannot think partially, but all aspects are related to each other in a living system.

The temperature on earth is increasing, rising significantly to give the impact of melting polar ice. However, the greenhouse effect is excessive in its development, causing global warming. Due to global warming, the hole in the ozone layer is getting bigger. Ecological damage from extreme climate change causes disasters everywhere, such as floods, hurricanes, droughts, landslides, fires, and food crises.



Source: (<https://berkeleyearth.org/global-temperature-report-for-2020/>)

Figure 2: The Air Or Global Temperature Has Increased Drastically In The Last Decade.

This table shows how the air or global temperature has increased drastically in the last decade. This data recorded the 2020 air temperature increase of up to 0.8 degrees Celsius. Of course, this should be a concern for all of us. Disasters due to climate change occur,

such as forest fires, droughts or clean water crises, Rising sea levels resulting in tsunamis, flooding everywhere, death of fish in the waters, famine, and so on. Energy efficient lifestyle by turning off lights when not in use or running water, taking out the trash, or consuming anything as necessary. Small things, if done communally and massively, will have a significant impact.

The Directorate of Climate Change Adaptation of the Ministry of Environment and Forestry also launched the ProKlim program (Climate Village Program), which was carried out from the central government level to the RW/RT level. The Climate Village Program (ProKlim), a national movement for community-based climate change control, is a response to the impacts of climate change that have occurred at the site level [5]. How does the community implement adaptation and mitigation programs from the architectural aspect to climate change in their environment? Climate change adaptation is an effort to increase the ability to adapt to the impacts of climate change. At the same time, mitigation is an action to prevent climate change that can be done. Adaptive and mitigation activities in the home environment and areas based on social or community capital are very important. This is the role of architects, and urban planners are needed as the residential designer of the environment and city. Sustainable thinking in architecture is defined as the living space of living things present in the unity of four folds (fourfold: sky, earth, divine, mortal)[6]. The house, humans, and their environment become an inseparable unit. The purpose of this study is to see the community's efforts in adaptation practices in the community environment carried out in urban housing with a modern-urban lifestyle in responding to the issue of climate change. This study uses a phenomenological method by taking the location of RW 11 Pekayon Jaya Bekasi as the research location. The lens used is the everyday life theory in order to obtain a comprehensive analysis of people's daily activities in their daily activities related to adaptation and mitigation of climate change. The results of this study are expected to be used as evaluation material for implementing adaptation efforts to climate change in the urban environment. It is hoped that other things can also be used as lessons for other areas at the level of the general public.

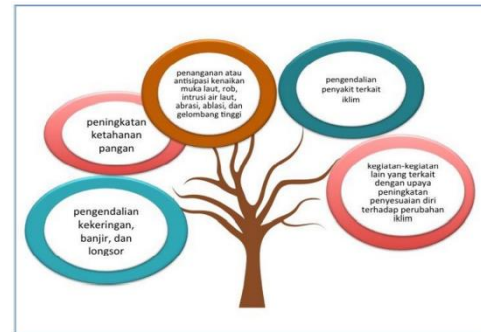
2. Material and Methods

The phenomenological method is used by taking the location of RW 11 Pekayon Jaya Bekasi [6]. Observations were also made on changes in the function, physical space, and residents' behavior. This is towards housing and their environment related to the issue of climate change. In-depth interviews were conducted with the management of RW 11 and several residents (community leaders) to obtain

information on how they have made efforts with activities in their area's residential and surrounding neighborhoods (RW). In-depth interviews were also conducted to obtain data on the environment's processing and social facilities, which are used as a space for activities to address the issue of climate change. The data is processed by classification and coding according to its class. The data is then juxtaposed with existing theories and rules. The analysis is carried out using an adaptive theory of behavior to changes in spatial practice. This interpretation is carried out on the findings to get the essence of the answers to the problems raised. This research then obtains a model of how a city housing area can adapt its behavior in residential space and its daily environment to reduce climate change's impact on its environment.

2.1. Program Kampung Iklim (Proklam) As A Community-Based Government Program As An Effort For Adaptation And Mitigation Of Climate Change In The Site-Environment

The energy crisis, food crisis, and clean water have been felt. The community and the government are trying to take steps to mitigate these impacts in various ways. Pasal 70, UU Republik Indonesia Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup[7] concerning Environmental Protection and Management emphasizes that the community has the same and most comprehensive possible rights and opportunities to play an active role in environmental protection and management. The community can play an active role by increasing awareness of environmental protection. They have management, increasing independence, community empowerment, and partnerships. They are developing community capabilities and pioneers. They are developing community responsiveness to carry out social supervision. They are developing and maintaining local culture and wisdom in the framework of preserving environmental functions to maintain the continuity of life on earth[7]. Adaptive and mitigation activities in the home environment and areas based on social or community capital are very important. Proklam applies the concept of community empowerment (Community Based Development). Where do the community and its institutions carry out the activities in mobilizing and managing human resources and natural resources within the village, as well as those from outside the village, are directed to strengthen adaptation and mitigation efforts to the impacts of climate change[8]. The implementation of Proklam as a community-based national movement for climate change control is encouraged to be developed by considering the risks faced by the community in the future due to climate change.



Source: (Kementerian Lingkungan Hidup Dan Kehutanan Direktorat Jenderal Pengendalian Perubahan Iklim Desember 2017)

Figure 3: Adaptation Components In Proklam

Adaptation components in Proklam include controlling droughts, floods and landslides; increasing food security; increase or anticipation of sea level rise, rob, sea water intrusion, abrasion, ablation and high waves; climate-related disease control; activities related to efforts to increase adaptation to climate change.

Meanwhile, mitigation in Proklam includes waste, solid and liquid waste management; use of new and renewable energy as well as energy conservation and saving, handling agricultural land with low GHG emissions, increasing and or maintaining vegetation cover, preventing and overcoming forest and land fires, other activities related to efforts to reduce GHG emissions[9].

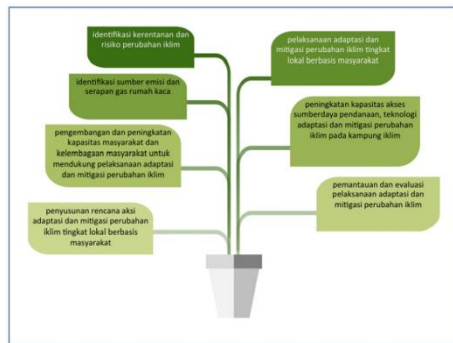


Source: (Kementerian Lingkungan Hidup Dan Kehutanan Direktorat Jenderal Pengendalian Perubahan Iklim Desember 2017)

Figure 4: The Scope Of Proklam

The scope of Proklam includes the preparation of community-based climate change adaptation and mitigation action plans at the local level; development and improvement of community

capacity and community institutions to support the implementation of climate change adaptation and mitigation; identification of sources of emission and absorption of greenhouse gases; identification of climate change vulnerabilities and risks; implementation of community-based climate change adaptation and mitigation at the local level; increasing capacity for access to funding resources, technology for adaptation and mitigation of climate change in climate villages; utilization and evaluation of the implementation of climate change adaptation and mitigation.



Source: (Kementerian Lingkungan Hidup Dan Kehutanan Direktorat Jenderal Pengendalian Perubahan Iklim Desember 2017)

Figure 5: The Components, Elements, And Scope Of ProKlim

The components, elements, and scope of ProKlim are the basis for implementing the ProKlim program from the local to global levels towards climate change. Including community involvement is the key to the success of this ProKlim program. The community, along with existing institutions and government institutional instruments, becomes a unified step from planning to implementing ProKlim. The principles of community empowerment in implementing ProKlim are community-based, local resource-based, and sustainable[10]. Community capacity can be achieved through empowerment so that community members can participate in the ongoing process or support institutions in the production process and equity without distinguishing status and expertise, security, sustainability, and cooperation) all run simultaneously[11].

2.2. Adaptation to environmental climate change in urban housing

A comfortable space supports humans in their activities. Various steps are taken to create comfortable conditions, both thermally, lighting, audio, visually, and even psychologically. It is difficult for humans to realize this desire, especially in urban communities. Urban people must pay dearly financially and environmentally to realize this

convenience. Limited land and environmental quality conditions have declined, making it impossible to get comfort naturally. Therefore, urban communities often take the short way to achieve comfortable conditions with technology such as the use of Air Conditional and artificial lighting. Not only the desire for a comfortable living space but convenience and speed are also the determining factors for the comfort of life. Global warming is caused by many motorized vehicles that require fuel, air conditioning, and artificial lighting; the use of electronic devices contributes to global warming. Household waste is a contributor to geothermal energy. It does not occur to us that a plate of food we eat requires much energy to arrive in front of us, and the rest of the food we have eaten that we throw away will cause an increase in geothermal energy.

Various attempts were made architecturally to overcome this problem in residential and the environment. The design of buildings and openings and the use of materials are architectural solutions. Associations and regulations related to energy saving were also formed to encourage sustainable designs, such as the Green Building Council Indonesia (GBCI) and the Indonesian Green Building Experts Association, as well as the presence of programs for the calculation and design of energy-efficient buildings such as EDGE Buildings (software).

However, daily, human (society) awareness about the impacts of climate change remains important. On the one hand, the desire to live comfortably, but on the other hand, to get comfort must be paid dearly economically, socially, and environmentally. Cultivating awareness to become a habit in everyday life is not an easy and short effort. "Changing behavior to become a habit" is an effort that must be carried out continuously, requires support from various parties, and requires personnel who are always continuous and continuous motivators. The stimulus, regeneration, and reward system based on top to down or bottom to up is an expected sustainable program. A rule model is needed for personal and community groups who always voice "care for the environment." When this has become a habit, individuals and the community will feel "happy" without being compelled to carry out "care for the environment" activities as a community response to climate change.

The house or dwelling as a human living space is the starting point for a model of how humans respond to climate change. When humans wake up, they carry out daily activities at home and in their environment until they sleep again. The use of energy, water, the need for oxygen (clean air), activities, food needs, generating or utilizing waste, and processing waste into daily cycles in human life. These things then become the focus of problems that can cause various crises that lead to climate change

2.3. The formation of community architecture naturally due to shared interests on climate change

Activities communities in everyday-life based community architecture [12]. *Community architecture* is an architecture that involves the community as an active participant to end users. Several self-help projects, architects, and stakeholders, namely the community together, carry out environmental improvement activities[13]. Community architecture is a shared goal between community participants (the public) in decision-making and involves processes that affect their environment and lives. Based on the needs and involvement of the community in making decisions related to the built environment as urban renewal. Community architecture requires the characteristics of a communicative society. The hope of community architecture can reflect the state of community welfare, which governs policies. Communities represent layers in society with the spirit, values, and conditions of the situation as well as shared desires in society. Due to the flexible and sweet conditions of society, the architecture of the community is flexible, open, and dynamic. Of course, this is related to the socio-cultural background of the community so that each product of community architecture will provide uniqueness based on each community[14].

3. Results and Discussions

a. Seeing everyday place-spaces for climate change adaptation

The community of RW 11 sees place and space not horizontally on the ground but also vertically. The present place or space is seen as land that can be worked on for adaptation and mitigation activities to climate change—using green walls, turning the drying room into a roof garden, or planting on vertical walls. The limited area of urban land makes urban people have to rethink their use with a vision and mission (care) on climate change. Residential functions that want "comfortable living" cannot be separated from the elements of air, lighting, water, energy, garbage, greening, and water absorption. Several dwellings in RW 11 have implemented the concept of mitigating adaptation to climate change.



Source: (KBA Pekayon, 2022)
Figure 6: Vertical Garden As The Proklim Program



Source: (Author, 2022)
Figure 7: Roof Garden As Adaptation And Mitigation Proklim Program

Utilization of Social and Community Health Facilities As a response to climate change, activities in RW 11 communities have been carried out, such as Vertical garden (Green wall); Aquaponic; hydroponics; conventional farming; Nursery Center; Solar cell; Tabulapot; Ecology Education Room; Vegetable and medicine growing fields; Fish pond; Composting; Waste Bank; Magot; Eco Enzyme and Eco brick. Agricultural in urban is a solution for mitigation of food[15]. Urban agriculture has become a common practice in many cities by involving communities in ways that vary between countries and between cities [16].



Source: (KBA Pekayon, 2022)
Figure 8: Public Space as Urban Farming in the Proklim Program



Source: (KBA Pekayon, 2022)
Figure 9: Public Space As Vertical Garden; Urban Farming In The Proklim Program

b. Seeing everyday place-spaces for climate change adaptation- dwelling

The limited area of urban land makes urban people have to rethink their use with a vision and mission (care) on climate change.

Residential functions that want to achieve the word "comfortable living" cannot be separated from the elements of air, lighting, water, energy, garbage, greening, and water absorption. Several dwellings in RW 11 have implemented the concept of mitigating adaptation to climate change.



Source: (Author, 2022)

Figure 10: Condition Of The House With The Proklam Program-Natural Lighting And Temperature



Source: (Author, 2022)

Figure 11: Condition Of The House With The Proklam Program-Natural Lighting

c. Proklam programm in RW 11 Pekayon Jaya

The key to the success of the Proklam program in RW 11 is togetherness in the community.

Community is a very important social capital. Cooperation and seeing the problem of climate change as a common urgent problem becomes a common concern as social capital that must be echoed continuously. From a small scale but gradually spread to a larger and wider area. Now RW 11 has ten fostered RWs who are invited and fostered to see common problems, raise awareness of common interests and sustainable life, and make aware of the crises that will occur and are currently happening. The following shows the changes in housing in RW 11 in 2003 (before the ProKlim program) and housing in 2020 (after the ProKlim program) as well as the RW 11 environment before the ProKlim program and after the ProKlim Program



Source: (KBA Pekayon, 2022)

Figure 12: Condition Of The House Before The Proklam Program And After The Proklam Program



Source: (KBA Pekayon, 2022)

Figure 13: Condition Of The Street Before The Proklam Program And After The Proklam Program

d. Community-based Adaptation and Mitigation to Climate Change

The community of RW 11 Pekayon Jaya as a community is a very important social capital for the success of this Proklam program. The number of household heads of around 160 families with a population of about 550 is a model for other communities for awareness programs about climate change and the steps taken. Community-based mitigation and adaptation carried out in RW 11 Pekayon Jaya has been at a national level with the sustainable category from the Indonesian government. The highest category in the implementation of this Proklam program is the Sustainable category. To achieve this category, RW 11 must have the target area of 10 other RWs. This is done with the aim of the Proklam program to spread to all regions and communities. So that together, there is public awareness about the impacts of climate change and its mitigation and

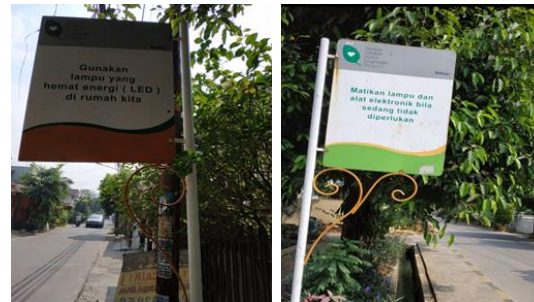
adaptation activities. Periodically, RW 11 holds training and coaching for the RWs under construction. The selected assisted RWs are RWs that have potential that can be developed both in existing activities or programs (done by the RW but need guidance and improvement) as well as the procurement of new programs in the context of the Proklim component.

Some of the RWs have the potential for waste processing with the existence of a waste bank. There is also waste processing with composting and reforestation, urban agriculture, and flood control in the area. Food security by planting limited land use and aquaculture cultivation is also carried out as an effort for family food security. The promotion of herbal medicine is also carried out by planting medicinal plants as well as processing healthy drinks and healthy foods through processed products made from their plants such as telang flower tea drinks, Moringa tea, or other processed products. the working principles of urban agricultural ecology are; This can provide benefits, namely (1) conservation of soil and water resources, (2) improving air quality, (3) creating a healthy microclimate, and (4) providing beauty because urban agriculture is very concerned about aesthetics[17] and as a mitigation effort against climate change[18]

e. Caring for the spirit by installing a slogan on the side of the road

Maintaining a shared spirit within the community is crucial to achieving a common goal. This social capital is significant for the success of environmental development. The issue of climate change is a common problem and must be solved together. Sometimes the spirit in humans experiences ups and downs, so it is necessary to take care of the spirit carried out by keeping the fire of enthusiasm among community members. This is where we need a character who never gets tired of providing continuous education and enthusiasm. Mrs. Lala is a community leader whose role is to provide sustainable enthusiasm for the community members of RW 11.

In addition to someone who plays a role as a character who always maintains a sustainable spirit, this is also done by installing slogan boards that are installed along the RW 11 environmental road. Slogans are related to environmental awareness, such as invitations to save energy, sort waste, not use plastic bags, save water, invite planting, invitations to clean life and a clean environment, and recycling waste. The slogans warn the residents of RW 11 and those who pass through it. This slogan's installation is strategically placed and is easy to read by the public.



Source: (KBA Pekayon, 2022)
Figure 14: The Slogans For The Spirit As Proklim Program

f. Waste processing towards community-based zero waste

A healthy, comfortable, clean environment is the desire of every citizen. The "put the trash in its place" campaign is not enough to improve the quality of life. Environmental campaigns about "Zero waste" must be echoed in the community. Residents of RW 11 Pekayon Jaya pay serious attention to this waste problem. The desire of the residents of RW 11 to process waste through waste sorting, composting, holding a waste bank, making Eco Enzymes, making biopori in the environment to maggot cattle as a kitchen waste processor[19]. The community of RW 11 residents has been aware of the environment since 2004 with the Environmental Care Movement (GPL) establishment. From this, GPL then developed human and environmental empowerment programs. Some programs that have been carried out are Reading Gardens (MANCA), Compost House, Garbage Bank, GPL Kid, counseling on environmental themes, and so on. This program is actually based on the residents' desire to improve the quality of the environment so that it can be better.

The joint movement to reduce waste is a movement that is always echoed and has become an environmental program in RW 11. Residents are always reminded to behave to reduce waste. The use of reusable materials is the solution. Not using plastic bags is an appeal that is consistently campaigned to residents, vegetable vendors, and traders who trade around in RW 11. Using eating boxes and drinking containers with tumblers is one of the actions that are appealed to all residents of RW 11. Likewise, carrying and not using plastic bags when shopping is an activity campaigned by environmentalists in RW 11.

Garbage sorting starts from each house. Initially, waste was only separated into two, namely organic and inorganic waste. Then the sorting develops into three, namely dry waste that can be recycled, leaf waste that can be composted and kitchen waste. It is not enough to sort it into three groups, then upgrade it to paper waste, plastic bottle waste that can be

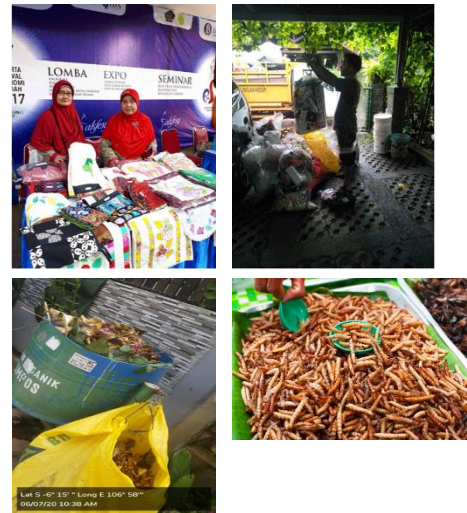
resold (garbage bank), leaf waste for compost, tetra pack waste, etc. which can be used for eco bricks, fruit peel waste that can be used for eco enzymes[20] and kitchen waste (originally disposed of in the trash or biopori, but this last time to eat maggot cattle).

Biopori as a solution to provide a place for water infiltration in the environment[21]. Biopores function not only as a means of increasing soil absorption of water, but also as a place for soil organisms to live in these pores. This can happen because the biopori will provide a supply of water and oxygen to these organisms. The more biopores, the better the quality of the soil and waterlogging or flooding can be overcome. Making biopore holes in the soil with a depth of 1 meter with a diameter of 15 cm in each home page and the sides of the road is a step to revitalize soil quality. Biopori can also be filled with kitchen waste. This will give life in the soil. Worms will eat the waste from this biopori and will loosen the soil so that pores occur in the soil. The soil will become fertile and water can be absorbed in it. Biopori is useful for reducing the amount of organic waste, fertilizing the soil, and preventing flooding[22].

Eco enzymes are ingredients from fruit peel waste fermented with molasses or brown sugar with water in a ratio of 1:3:10. The making of this eco-enzyme is done by incubating it for 30 days. Thus, eating the fruit peel waste will react together to ferment, Eco Enzym (EE) can be used as a rejuvenator for air that is already so polluted. EE also has many benefits for life in nature as a step to revitalize the environment. EE was originally discovered by Dr. Rosukon Poompanvong[23] and developed by Dr. Joean Oon[24].

The rest of the kitchen waste can be used for maggot food, usually thrown in the trash. These animals can be raised from black flies. Lava from flies (BSF) or maggot as caterpillars from black flies has economic value as fodder for livestock, birds, fish, and others. Maggot is mainly a waste-eating animal to clean the environment from waste and achieve zero waste.

The rest of the kitchen waste, which is usually thrown in the trash, can be used for maggot food. These animals can be raised from black flies. Lava from flies (BSF) or maggot as caterpillars from black flies has economic value as fodder for livestock, birds, fish, and others. Maggot is mainly a waste-eating animal to clean the environment from waste and achieve zero waste.



Source: (KBA Pekayon, 2022)
Figure 15: Zero Waste Concept For Proklam Program

Rainwater Storage (PAH) is a measure to save water and use water that is good for the environment. This is also a solution to overcome drought and flooding, as well as excessive groundwater extraction such as for washing cars, watering plants, and other purposes

g. Caring for the spirit with environmental events

It is not easy to maintain the togetherness of this community. Meetings should be held frequently to equalize steps. The participation of institutional support is also very much needed, such as the government through the Ministry of Environment. The private sector, as well as holding events that provide challenges to continue to work and improve the quality of the environment. In 2018 RW 11 received an award in the form of a certificate for the Main Climate Village program category.



Source: (KBA Pekayon, 2022)
Figure 16: Sertificate For RW 11 In Proklam Program

The ProKlim is a national program and, even as a continuation of the international program, creates programs that encourage improving the quality of participants in the community. The category levels for the quality of ProKlim participants are (highest to lowest hierarchy): Sustainable category; Main categories; Intermediate category, and Primary category. Submission to a higher level is, of course, followed by strict requirements so that this spirit makes residents work together. RW 11 is currently in the process of verifying the sustainability category.

RW 11 hope their areas can Lestari category. To maintain the community's spirit in building its environment, RW 11, an educational institution (Tarumanagara University), held competitions events in collaboration with stakeholders.



Source: (KBA Pekayon, 2022)
Figure 17: The Event "Mother Day"



Source: (KBA Pekayon, 2022)
Figure18: Foods Of Desertification Telang And Kelor For Proklm Program

h. The natural formation of community architecture due to the common interest in climate change in RW 11

The community of RW 11 positively responds to programs related to adaptation and mitigation of climate change in the world. Community activities involving residents and RT and RW officials become social capital to achieve the common goal of forming a better environment and

minimizing the impact of climate change on the environment.

The community of RW 11 actively participates in creating their living space (architecture) for environmental quality. Meetings between residents and RT and RT administrators discussing common interests are held almost every week in RW 11. This is then, consciously or not, RW 11 has formed architecture in its community. The community intervenes in their environment with various activities in their daily space. The community of RW 11 has utilized limited spaces as green space and food security; vertical space for planting space economically and aesthetically; roadsides as intervention spaces for planting and aesthetic activities. The creation of multi-functional spaces on public and social facilities lands to improve the community's quality of life.



Source: (KBA Pekayon, 2022)
Figure 19: The Community Of RW 11 And Stakeholders Positively Responds To Programs Related To Adaptation And Mitigation Of Climate Change In The World.

4. Conclusion

The practice of community activities in adapting and mitigating climate change in their environment (urban-modernist) in everyday spaces is carried out in urban housing in urban-modernist living spaces. They carry out activities on limited land with an "urban" nature (individuals are converted into communal)

Various efforts of community members in order to improve the quality of space to deal with the issue of climate change in the area of their homes. By designing the use of the principles of natural lighting, natural air, house landscapes, and the use of public facilities and roads as open spaces for climate change mitigation and adaptation so that there is still improvement in the quality of space. life

Adaptive and mitigation activities in the home environment and areas based on social or community capital are very important.

RW 11 Pekayon Jaya is one of the models of how people and communities react to climate

change on a micro and mezzo scale but hopes to have a global impact.

"Care" towards nature with changes in thinking, behaving, and then taking action in daily activities (saving energy, saving water, planting trees that contribute O₂, zero waste concept, utilizing natural light and air).

Acknowledgement

Thank you to the Universitas Tarumanagara Research and Community Service Institute for providing research funds. Thank you also to the residents of RW 11 Pondok Pekayon Jaya, South Bekasi, who have been permitted to collect research data.

References

- [1] <http://ditjenppi.menlhk.go.id/kcpi/>
- [2] Direktorat Jenderal Pengendalian Perubahan Iklim, Kementerian Lingkungan Hidup dan Kehutanan KCPI-IC Ican Knowledge Centre Perubahan Iklim Indonesia Climate Innovation in Action Situs Information Pengendalian Perubahan Iklim Indonesia, <http://ditjenppi.menlhk.go.id/kcpi/>.
- [3] <http://kaltim.litbang.pertanian.go.id/>
- [4] <https://dlhk.jogjaprovo.go.id/mengenal-lahan-dalam-gas-rumah-kaca>.
- [5] Nur Masripatin, 2017. Pengantar ROAD MAP PROGRAM KAMPUNG IKLIM (PROKLIM) ROAD MAP Gerakan Nasional Pengendalian Perubahan Iklim Berbasis Masyarakat, Kementerian Lingkungan Hidup Dan Kehutanan Direktorat Jenderal Pengendalian Perubahan Iklim,
- [6] Heidegger, M., Martin Heidegger Basic Writing: Ten Key Essays, plus the Introduction to Being and Time, (Krell, D.F., Trans). Harper Collins; Revised and Expanded edition, 1993.
- [7] Moustakas, C., Phenomenological Research Methods, Thousand Oaks: Sage Publications, 1994.
- [8] Pasal 70, UU Republik Indonesia Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan
- [9] Kementerian Lingkungan Hidup Dan Kehutanan Direktorat Jenderal Pengendalian Perubahan Iklim, ROAD MAP PROGRAM KAMPUNG IKLIM (PROKLIM) ROAD MAP Gerakan Nasional Pengendalian Perubahan Iklim Berbasis Masyarakat, Desember 2017
- [10] ibid
- [11] ibid
- [12] Andri Y., Yandi, 2014, *Arsitektur Untuk Masyarakat*, Pidato pada Upacara Pengukuhan Sebagai Guru Besar Tetap dalam Bidang Ilmu arsitektur pada Fakultas Teknik Universitas Indonesia, Depok 8 Oktober 2014
- [13] Wates, N., Kneivitt, C., *Community Architecture How People Are Creating Their Own Environment*, London: Routledge, 2013
- [14] Zamfir, M., *A Brief Introduction to Community Architecture Concept From Believing to Reality*, ICAR2015 International Conference on Architectural Research, 2015
- [15] Rifqi, A.F., Nur, A.I., Agustin, H., (2016), Pertanian Perkotaan: Urgensi, Peranan, dan Praktik Terbaik, Jurnal Agroteknologi, Vol. 10 No. 01 (2016) <https://www.google.com/search?q=Noorsya+dan+Kustiwan%2C+2013&oq=Noorsya+dan+Kustiwan%2C+2013&aqs=chrome..69i57j15l5&sourceid=chrome&ie=UTF-8>
- [16] Tornaghi, Chiara, 2014, Critical geography of urban agriculture, *Progress in Human Geography*, Vol. 38(4) 551–567 DOI: 10.1177/0309132513512542phg.sagepub.com
- [17] Setiawan B., dan Rahmi, H. D. (2004), Ketahanan Pangan, Lapangan Kerja, dan Keberlanjutan Kota: studi Pertanian Kota di Enam Kota Indonesia, *Warta Penelitian* 2004, (5). <http://i-lib.ugm.ac.id/jurnal/detail.php?dataId=7541>
- [18] Specht, K., et al. (2014), Urban agriculture of the future: an overview of sustainability aspects of food production in and on buildings *Agriculture and Human Values* 31(1) DOI: 10.1007/s10460-013-9448-4 *Agric Hum Values* (2014) 31:33–51 DOI 10.1007/s10460-013-9448-4
- [19] Septiani, U., Najmi, Oktavia., R., *Eco Enzyme: Pengolahan Sampah Rumah Tangga Menjadi Produk Serbaguna di Yayasan Khazanah Kebajikan*, Seminar Nasional Pengabdian Masyarakat LPPM UMJ <http://jurnal.umj.ac.id/index.php/semnaskat>, 28 OKTOBER 2021
- [20] Megah, S. I., Dewi, D. S., & Wilany, E. (2018). Pemanfaatan Limbah Rumah Tangga Digunakan Untuk Obat Dan Kebersihan. *Minda Baharu*, 2(1), 50. <https://doi.org/10.33373/jmb.v2i1.2275>
- [21] Arifin, Z., Danardono D., D. P T, Adhi R., R.R, Suyitno, S., Dwi S., P, Hadi S., Penerapan Teknologi Biopori Untuk Meningkatkan Ketersediaan Air Tanah Serta Mengurangi Sampah Organik Di Desa Pura Sukoharjo *Jurnal SEMAR*, Vol 9, No 2 (2020)
- [22] ibid
- [23] Larasati D., Puji A., A., Triwahyuni E., M., Uji Organoleptik Produk Eco-Enzyme Dari Limbah Kulit

Buah (Studi Kasus Di Kota Semarang), Seminar
Nasional Edusainstek, FMIPA UNIMUS 2020

International Journal of Built Environment and Scientific Research

Published by: Ars UMJ Press
Department of Architecture
Faculty of Engineering
Universitas muhammadiyah Jakarta
jurnal.ijbesr@ftumj.ac.id




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#13571 Review

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Submission



Authors Samsu Hendra Siwi 
Title Dwelling and the Environment: Community-Based Adaptation and Mitigation to Climate Change
Section Articles
Editor Anggana Satwikasari 

Peer Review

Round 1

Review Version [13571-35346-1-RV.DOCX](#) 2022-08-15
Initiated 2022-10-17
Last modified 2022-10-17
Uploaded file Reviewer A [13571-36896-1-RV.DOCX](#) 2022-10-17

Editor Decision

Decision Revisions Required 2022-10-17
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[IJBESR] Submission Acknowledgement

1 message

Lutfi Prayogi <jurnal@umj.ac.id>

Mon, Aug 15, 2022 at 4:05 PM

To: Samsu Hendra Siwi <samsus@ft.untar.ac.id>

Samsu Hendra Siwi:

Thank you for submitting the manuscript, "Dwelling and the Environment: Community-Based Adaptation and Mitigation to Climate Change" to International Journal of Built Environment and Scientific Research. With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

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If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

Lutfi Prayogi

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[IJBESR] Editor Decision

1 message

Ari Widyati Purwantiasning <jurnal@umj.ac.id>
To: Samsu Hendra Siwi <samsus@ft.untar.ac.id>

Mon, Oct 17, 2022 at 3:01 PM

Samsu Hendra Siwi:

We have reached a decision regarding your submission to International Journal of Built Environment and Scientific Research, "Dwelling and the Environment: Community-Based Adaptation and Mitigation to Climate Change".

Our decision is to: REVISION REQUIRED

Ari Widyati Purwantiasning
Universitas Muhammadiyah Jakarta
Phone 0818946327
arwityas@yahoo.com

Assoc. Prof. Ari Widyati Purwantiasning, ST, MATRP, IAI

International Journal of Built Environment and Scientific Researches
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[IJBESR] Editor Decision

1 message

Ari Widyati Purwantiasning <jurnal@umj.ac.id>
To: Samsu Hendra Siwi <samsus@ft.untar.ac.id>

Wed, Oct 19, 2022 at 11:29 AM

Samsu Hendra Siwi:

We have reached a decision regarding your submission to International Journal of Built Environment and Scientific Research, "Dwelling and the Environment: Community-Based Adaptation and Mitigation to Climate Change".

Our decision is to: ACCEPTED

Ari Widyati Purwantiasning
Universitas Muhammadiyah Jakarta
Phone 0818946327
arwityas@yahoo.com

Assoc. Prof. Ari Widyati Purwantiasning, ST, MATRP, IAI

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