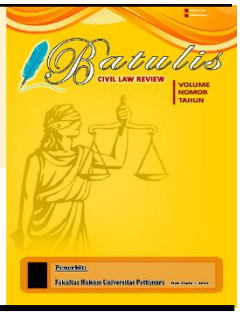
Batulis CIVIL LAW REVIEW
Volume 3 Issue 2, November 2022: p. 137 - 151
P-ISSN: 2722-4465, E-ISSN: 2746-8151



Community Participation for Adaptation and Mitigation of Climate Change: Case study the implementation of *Program Kampung Iklim (Proklim)*

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Submitted: 26/05/2022 *Revised: 18/08/2022* *Published: 26 /08/2022*

Info Artikel

Keywords:
Climate change; Mitigation and Adaptation; Proklim.

DOI:
10.47268/ballrev.v3i2.945

Abstract

Community is the most vulnerable to climate change. Engaging community is an important factor for the effectiveness and efficiency of the climate change policy and Proklim is one of solutions to implement it. Proklim is regulated through the Minister of Environment and Forestry Regulation Number P.84/MENLHK-SETJEN / KIM.1 / 11/2006 concerning the Climate Village Program and the regulation of the Director General of Climate Change Control No. P.1/PPI/SET/KUM.1/2/2017 concerning Climate Change Guideline. This study aims to analyze the forms of community participation in Proklim. The method used is a qualitative method with a juridical-empirical approach. The study found that the implementation of Proklim uses a top down approach, where the program was born not based on community initiation but came from the government, the community only acted as program beneficiaries without being actively involved. Mitigation programs are generally developed than adaptation programs. In addition, it is important to create an engaging mechanism. The existence of community groups and community leaders and the availability of supporting tools are important factors in creating the sustainability of ProKlim. This program is expected to increase public understanding of climate change and its impacts, so that lifestyle changes can adapt to it.

1. Introduction

Research shows that 62% (per cent) of villages in Aceh are vulnerable to climate change. Villages located in coastal areas are vulnerable to rising sea levels and will experience a long dry season that affects agriculture. Meanwhile, villages located in mountainous areas that have been deforested will be susceptible to disasters such as floods and landslides caused by even relatively normal rainfall. In addition, climate change impacts environmental damage and affects the socio-economic community (Serambi Indonesia, 2016). Therefore, the government needs to increase public understanding of protecting the environment and improving community resilience through climate change mitigation and adaptation policies.

One of the government programs that respond to the impacts of climate change is the Climate Village Program (Proklim). Proklim is one of the climate change adaptation programs launched through the Minister of Environment and Forestry Regulation Number P.84/MENLHK-SETJEN/KIM.1/11/2006 concerning the Climate Village Program (PerKLHK Proklim) and the Director-General of Climate Change Control Regulation No. P.1/PPI/SET/KUM.1/2/2017 concerning Guidelines for the Implementation of the Climate Village Program (PerDirjen Proklim Guidelines). This program aims to increase the involvement of the community and stakeholders to strengthen adaptive capacity to the impacts of climate change and reduce greenhouse gas emissions as well as to provide recognition of the climate change adaptation and mitigation efforts that have been carried out by the community that can improve welfare at the local level following regional conditions (Article 1 letter 1 PerKLHK Proklim). Climate Village is a location located in the lowest administrative area at the level of a community unit or hamlet, the highest at the village level, or a place where the community has made efforts to adapt and mitigate climate change on an ongoing basis (Article 1 letter 2 PerKLHK Proklim).

In 2016, the Aceh Government through the Environment and Forestry Service (DLHK), established four Proklim villages (gampong), namely Gampong Ulee Lheue and Lamteh in Meuraxa District, Banda Aceh City, Blang Baro Saree Hamlet in Lembah Seulawah District, Aceh Besar Regency, Gampong Iboih in Sabang City, and Kelitu Village in Central Aceh Regency. The determination of the Climate Village is part of the adaptation program to the impacts of climate change by involving the community and stakeholders to strengthen the Aceh Government's commitment as part of the Proklim at the national level.

Communities need to address the impacts of climate change because they are the most vulnerable group to it. In addition, community involvement can increase the effectiveness and efficiency of implementing policies related to climate change, especially in climate change adaptation programs. Furthermore, nowadays, governments and policymakers in many countries are increasingly paying attention to community involvement as one of the key elements in improving policies related to climate change (Wiseman et al., 2009). This study aims to examine the form of community participation in the implementation of Proklim to overcome the impacts of climate change.

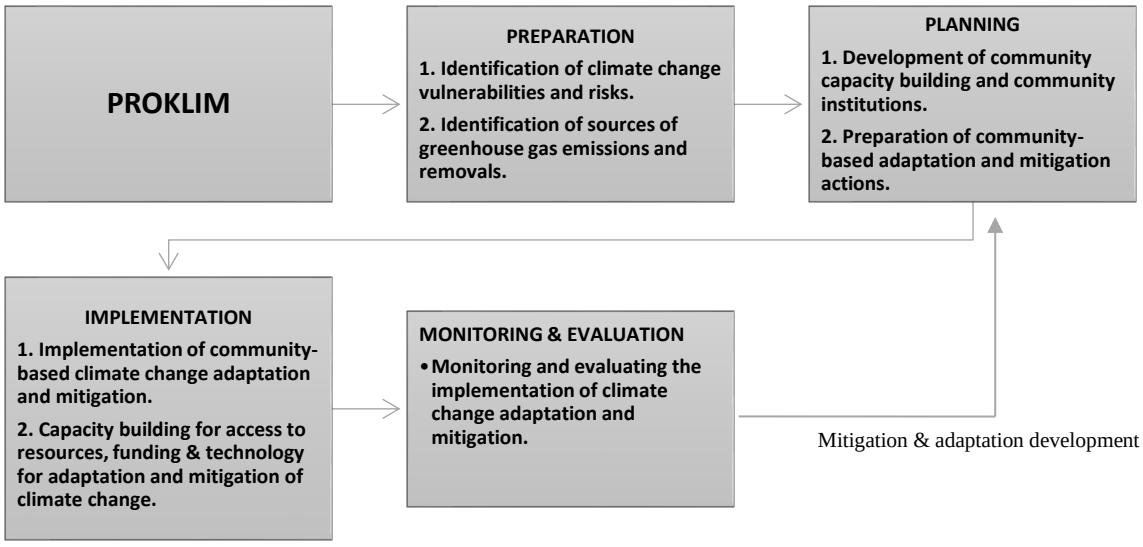
2. Methods

This research is qualitative research with a case study approach, which examines the initial initiation of the Proklim implementation. The research locations, which represent urban areas, are Gampong Ule Lheue, Banda Aceh City and Lamteh in Aceh Besar District; mountainous regions, namely Dusun Blang Baro Gampong Saree, Aceh Besar District; and coastal areas, namely Gampong Iboih in Sabang City, all areas are Proklim pilot areas. The election is expected to give a different nuance in seeing community participation in programs to overcome the impacts of climate change. Data were obtained through field research by conducting observations and

interviews with the government as the person in charge of Proklim, namely the Environment and Forestry Service (DLHK Aceh Province) and village officials and the community implementing Proklim in the research area. Data is also obtained by analyzing the regulations on Proklim and other related laws. Community participation analysis was carried out using the ladder of public participation proposed by Sherry R. Arnstein; that divides community participation into eight levels of involvement, manipulation, therapy, informing, consultation, placation, partnerships, delegated power, and citizen power. All data collected is sorted based on the criteria arranged to see the form of community participation in the implementation of the Proklim and described by descriptive analysis method.

3. Results And Discussion

Proklim aims to increase public understanding of climate change and its impacts, thereby encouraging the implementation of concrete actions that can strengthen community resilience in the face of climate change and contribute to reducing greenhouse gas (GHG) emissions. Article 5 of the Director-General of Proklim Implementation Guidelines states that the stages of Proklim implementation include Preparation, Planning, Implementation, and Development of climate change adaptation and mitigation actions in locations designated as climate villages. The stages of implementing the Proklim are described in the following figure:



Sources : PerDirjen Pedoman Proklim, 2017.

Figure 1. Stages of Proklim Implementation

Each stage involves the Proklim component as the driving force, namely the Government, Proklim Supporters, and Proklim Implementers. The government in question is the Central Government and the Provincial and Regency/City Governments. Through the relevant ministries, the Central Government has the duties and functions of facilitating the implementation of local climate change

adaptation and mitigation actions, while the regional governments strengthen the performance of Proklim in the regions.

Proklim supporters may consist of businesses, universities, research and development institutions, community organizations, non-governmental organizations, and other development partners. Proklim supporters can take a role in facilitating the formation of a Climate Village in the form of technical support, equipment, technology, funding and other forms of support. Proklim implementers are community groups living in climate village locations which are tasked with carrying out climate change adaptation and mitigation activities, developing institutions at the local level and developing collaborative networks to strengthen the implementation of Proklim on an ongoing basis.

3.1 Determination of Target Areas and Identification of Area Vulnerabilitie

The implementation of Proklim in Aceh Province began in 2016 by setting 7 Proklim target areas that were the initiation of the Aceh DLHK based on recommendations from the District/City Environmental Service. This research has succeeded in gathering information related to the implementation of Proklim from 4 (four) Proklim project pilot areas, namely Gampong[1] Lamteh and Ule Lheu in Banda Aceh City, Hamlet Blang Baro Gampong Saree Aceh in Aceh Besar, and Gampong Iboih in Sabang City.

The determination of Gampong Lamteh and Ule Lheu as Proklim areas is based on considering that these areas are ground zero (starting point) for Banda Aceh City even though this reason would be difficult to justify as a Proklim area because it includes two villages, namely Gampong Lamteh and Gampong Ulee lhee. While the conditions for determining the climate village area are the administrative area at the lowest level at the level of the community unit or hamlet and the highest at the village level, or a place where the community is has made efforts to adapt and mitigate climate change or activities related to environmental protection on an ongoing basis. In other words, the Proklim target is a village or hamlet whose community already has activities that can be categorized as sustainable climate change adaptation and mitigation activities. The reason for the determination of the area is also because Gampong Lamteh is one of the villages assisted by PT PLN (Persero) through Corporate Social Responsibility (CSR) funds. Therefore, it is hoped that PLN can be involved, especially regarding funding for program sustainability.

The determination of Blang Baro Hamlet, Gampong Saree Aceh as a Proklim area did not go through an analysis of the area's vulnerability to climate change even though the hamlet is located in an area that is prone to disasters, especially volcanic eruptions because it is right at the foot of Mount Seulawah. In addition, the site also has a history of territorial conflicts (tenures) between the community and the government, especially regarding the determination of forest conservation areas.

[1] Gampong is a term used to describe villages in Aceh Province, which are regulated under Law No. 44 of 1999 concerning the Privileges of Aceh.

Meanwhile, the determination of Iboih, Sabang is based on its potential as a major tourist destination in Sabang City. The implementation of Proklim in Sabang City begins with surveying to identify regional vulnerabilities and risks to climate change in several villages. Based on the survey, Gampong Iboih was identified as a village that met the criteria designated as a Climate Village. One of the criteria to be considered is community groups that have carried out environmental maintenance activities in coastal areas. The people involved are local people and foreign tourists who, together with the community, form an ecological community. In addition, Iboih is also one of the main tourist destinations in Sabang City. It is also a consideration for the determination of the area as a Proklim pilot area.

Table 1.

Climate Change Data perceived by the local community at Gp. Iboih, Sabang.

No	Event	Data
1	Changes in the rain frequency	increase
2	Changes in rainfall intensity	Decrease
3	Change/Shift of rainy/dry season	No
4	Changes in air temperature	Yes
5	Hurricane incident	No
6	Changes in tides	Yes

Resources: Proklim Questionnaire, 2012-2016 (edited).

Tabel 2.
Climate-Related Event Data

No	Event	Data
1	Flood	decrease
2	Landslide	decrease
3	Drought	Never
4	Crop Failure	Never
5	Sea Flood	Never

Resources: Proklim Questionnaire, 2012-2016 (edited).

Table 1 describes the climate change felt by the people of Iboih Sabang. The data explains that the community feels a difference in the frequency of rain and a reduction in rainfall intensity. Furthermore, the community also did not feel the change/shift between the rainy and dry seasons. Meanwhile, changes in air temperature and changes in sea tides occur in the region.

The results of a study conducted by the Inter-Governmental Panel on Climate Change (IPCC), a panel consisting of international experts who aim to examine

scientific aspects of climate change as input for the United Nations Framework Convention on Climate Change (UNFCCC), concluded that rising sea level caused by changes in tides is one of the impacts of climate change. In addition, other impacts include increasing sea and air temperatures, shifting rainfall patterns, and extreme weather (Carter, T.R, 1994). In the future, this impact will occur more frequently, thus threatening food security, human health, availability of clean water, and biodiversity (IPCC, 2001). The data shows that changes in weather and sea tides are occurring, thus requiring the attention of relevant parties in preparing the community to deal with this.

Table 2 describes climate-related events experienced by the people of Iboih, Sabang. The data shows that floods and landslides are reduced, while sea flooding has never occurred in the area. In terms of drought and crop failure, one of the impacts of climate change, based on data, has never been experienced, especially in the Gampong Iboih community.

After determining the area, at the implementation stage, the management (DLHK Aceh) cooperates with DLHK Sabang to disseminate Proklim. Proklim socialization is carried out in the form of lectures with presentations on Proklim and activities that can be carried out to support efforts to overcome the impacts of climate change. For instance, waste management, water absorption methods through biopori, and planting plants using the hydroponic method. At this stage, the community is involved as a participant and tends to be passive because socialization activities do not use a participatory method but a one-way method. Discussions and questions and answers were still held but only to respond to participant questions. Furthermore, there is no follow-up in preparing activities related to climate change adaptation and mitigation by the community and Proklim management.

3.2 Mitigation and Adaptation Programs in the Proklim

Proklim activities include adaptation, mitigation, and aspects that support the sustainability of the implementation of climate change control at the local level. Identifying vulnerabilities and risks of climate change according to the typological characteristics of the region is carried out before the Proklim program begins. Of the three Proklim areas, only Gampong Iboih of Sabang City analyzed regional vulnerability and climate change risks. The results of this analysis are needed to prepare community-based climate change adaptation and mitigation action plans at the local level. Without this knowledge, it will be difficult for Proklim Implementers to develop an activity plan that follows the community's needs and the region's vulnerability to the impacts of climate change.

In the implementation phase, climate change impacts are handled by developing climate change mitigation and adaptation programs. The mitigation program will be carried out through a series of activities aimed at reducing GHG emission levels. These activities include: (1) waste management, solid and liquid waste; (2) the use of renewable energy and energy conservation and saving; (3) development of low GHG agricultural land; (4) increase and maintain vegetation cover; (5) prevention and control of forest and land fires; and (6) other activities

related to efforts to reduce GHG emissions (Article 6 paragraph (3) of the Director-General of Climate Change Guidelines).

This study shows that the development of the Proklim mitigation program is generally carried out through infrastructure development, including the construction of a Waste Water Treatment Plant (IPAL/WWTP), the construction of water reservoirs, and the construction of a water treatment unit (Waste Water Garden (WWG)). The Aceh DLHK usually carries out infrastructure development. In addition, the waste management program is also on the agenda in climate change mitigation efforts, including the program to provide trash cans, waste transportation facilities, and form a waste care pioneer. Water source management is also one of the programs to overcome climate change, which is realized by planting trees around residential areas and springs, as was done in Blang Baro Hamlet and Gampong Iboih.

The study found that almost all of the infrastructure built was no longer usable. The WWTP in Iboih cannot be used due to the problem of insufficient electricity supply. In addition to the wastewater distillation equipment, which has also been damaged. Water reservoirs in Blang Baro Hamlet and Lamteh Village are also no longer usable. Furthermore, some of people also does not know the existence of the water reservoir, so they do not see the function of the place.

Indonesia commits to reduce GHG emission levels by 29% with its ability (unconditional) and 41% with international support (conditional) by 2030 as outlined in the Nationally Determined Communication (NDC) document. The dependent target will be achieved by reducing GHG emissions in the forestry sector (17.2%), energy (11%), agriculture (0.32%), industry (0.10%), and waste (0.38%) (KESDM, 2016). The forestry sector plays an important role in reducing GHG emissions because forest fires largely contribute to Indonesia's greenhouse gas emissions. However, other sectors, including waste management programs, play a major role in realizing Indonesia's commitment to reduce GHG emissions. Proklim can be one of the means to realize this commitment with the community as implementers.

Adaptation is recognized as a solution to address the impacts of climate change at the local level. Adaptation refers to ecological, social, and economic adjustments in response to the effects of current or expected climate change. In other words, it refers to a series of processes of adapting to changes in processes, practices, and structures to the potential harm that may occur or to take advantage of opportunities associated with climate change (IPCC, 2001).

The adaptation program includes several activities, including: (1) observing the assessment of impacts and vulnerability to climate change; (2) program planning; (3) program implementation; and (4) monitoring and evaluation. At the observation stage, socio-economic and environmental factors become important variables to determine the impact of climate change and support research on modeling and predicting the weather system and the impact of climate change (UNFCCC, 2010).

Article 6 paragraph (2) of the Proklim PerKLHK stipulates that the realization of community resilience can be carried out through adaptation activities, including (1) controlling drought, flooding, and landslides; (2) increasing food security; (3)

handling or anticipating sea level rise, sea flood, seawater intrusion, abrasion, ablation, and high waves; (4) control of climate-related diseases; and (5) other activities related to efforts to increase adaptation to climate change.

This study found that the three Proklim areas studied had not been identified as adopting climate change adaptation programs. In contrast, the community is vulnerable to environmental changes that affect their work. For example, the people of Iboih generally work in the tourism sector as tour guides or owners of supporting facilities for tourist objects. Sea conditions greatly influence their activities, and if the sea waves are high, they are likely not working to meet their daily needs. In addition, the Iboih area is also vulnerable to abrasion and high surges, so that people need to be given the knowledge to adapt to these conditions, including finding alternative income so that they can still meet their economic needs even though they cannot go to sea. The development of a community adaptation model is one solution. Another solution is to support the community's efforts independently to overcome environmental changes that affect their work.

One example of a government implementing an adaptation program related to climate change is the Bangladesh government. Bangladesh is one of the countries predicted to be most affected by climate change. In dealing with this, the Government of Bangladesh issued an adaptation program to climate change known as the National Adaptation Programmed Action (NAPA). The program is part of an action to assess impacts, vulnerabilities and to design adaptation programs to climate change. In Bangladesh, this program is considered a pioneer in tackling climate change by promoting a participatory approach that places the community as the main actor and other stakeholders, including Non-Governmental Organizations (NGOs), as supporting actors (Ahmed, 2006).

In addition to adaptation and mitigation programs, implementers are also expected to develop programs that support the sustainability of Proklim. The implementation can form a community group in charge of the activity. Besides that, it is also necessary for the community to be prepared independently regarding funding and ensure that all community groups can participate and pay attention to balanced gender participation. Supportive policies are also a condition that must be met.

3.3 Community Participation in Proklim

The impact of climate change affects society, the environment, and economic sectors. Communities are one of the groups most vulnerable to climate change. Community involvement is an important component in increasing the effectiveness and efficiency of implementing adaptation and mitigation policies related to climate change.

Sherry R. Arnstein (Arnstein, 1969) divides community participation in development into eight levels of involvement. At the lowest level are (1) Manipulation and (2) Therapy. These two levels are described as the non-participation level, where the main goal is not to provide opportunities for the community to participate in the planning and implementation of development

programs but as a way for policymakers to educate or heal the community. The following levels are (3) Informing, (4) Consultation, and (5) Placation. This level is called the level of degree of tokenism. At this level, the community hears and is heard of their opinions. However, they still do not have the power to ensure that their views will be considered and realized by the authorities.

Furthermore, Arnstein added level (6) Partnerships where the community and the government share power, the community has the right to negotiate with policymakers to reach a mutual agreement; (7) Delegated power, at this level, the community is given the authority to make decisions on certain plans; and in (8) Citizen power, the community can participate and control the entire decision-making process. These three levels are called degrees of citizen power marked by increased community participation in the development process.

At the policy level, based on PerDirJen Proklim Guidelines, the level of participation has shown an active participation. The community are involved in the Preparation stage by identifying the vulnerability impact on the area used as a climate village. Furthermore, the community should also be interested in the planning and implementation stages, especially related to preparing community-based climate change adaptation programs. Referring to the level of participation proposed by Anstein, this kind of involvement can be categorized at the degree of citizen power, where the community is one of the components that drive Proklim.

However, this research shows that the community has not been actively involved in planning and implementing Proklim. The community is only involved in the socialization stage of the program as participants and in activities such as tree planting, biopori making, and other activities that are merely implementing government plans. The community does not act as implementers but only as implementing assistants. At this stage, participation is still at the informing level, where the government only provides information to the community regarding the activities to be carried out, and the community does not have the power/authority to be actively involved in the process of planning and implementing activities. In other words, community participation in Proklim is a quasi-participation, like government programs that are generally top-down, thus affecting the program's sustainability.

The principle of community participation in development was first mentioned in the 1992 Rio Declaration on Environment and Development, which stated the importance of community involvement in solving environmental problems. Law 32 of 2009 concerning Environmental Protection and Management (UUPPLH) includes this principle with the explanation that "every member of the community is encouraged to play an active role in the decision-making process and implementation of environmental protection and management, either directly or indirectly." The role of the community is limited, such as social supervision, providing suggestions, opinions, proposals, objections, complaints, and submission of information and reports.

This principle is also contained in Law Number 27 of 2007 concerning the Management of Coastal Areas, which states that "the community has the same opportunity to participate in the planning, implementation, and supervision of coastal areas and small islands management." Recognition of community participation in the two laws is not accompanied by guidelines regarding the mechanism for the implementation process.

Moreeover, in the implementation of Proklim, cooperation is needed between all interested parties such as the government, Proklim supporters, and the community as Implementers. The government, in this case, needs to prepare a mechanism for community involvement in Proklim. At the regulatory level, this is clearly described, but how it is implemented, there needs to be a regulatory mechanism for community involvement.

Furthermore, community participation in Proklim is also an indicator of the realization of a sustainable program. In other words, the participatory principle is often associated with the principle of sustainable development. The World Commission popularized the principle of sustainable development on Environmental and Development (WCED) in its report entitled "Our Common Future." The Commission defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."(Keeble, 1988)

An understanding of this principle was further elaborated by Judge Weeramantry, who described that based on experience in several countries at various times, it shows that humans have reconciled and bridged the conflict between development needs and the need since ancient times for environmental protection. On this basis, Weeramantry concludes that sustainable development is a principle of modern law and is also one of the oldest human ideas and has been developed for thousands of years and has an important role in international law (Wibisana, 2017).

In addition to developing adaptation and mitigation programs, the success of Proklim is also influenced by the availability of supporting factors for the implementation of climate change control at the local level, including: (1) the existence of community groups in charge of activities; (2) the existence of policy support; (3) the level of community self-reliance, self-financing system, and gender participation; (4) community capacity in carrying out Proklim activities; (5) the existence of support from external parties such as the government, the business world, Non-Governmental Organizations (NGOs), universities, and other parties; (6) development of Proklim activities; (7) social, economic, environmental, and climate-related disaster risk reduction benefits by implementing various climate change adaptation and mitigation activities (PerDirjen Proklim Guidelines).

The existence of community groups as the person in charge of the program is one of the important requirements in supporting the sustainability of Proklim. Of the three Proklim areas, only Gampong Iboih has a community group called the "Go Green" group. The 'Awareness Tourism' group was formed in 2006 and focused on social activities after the Aceh Tsunami in 2004. Subsequently, the group's activities

developed to support tourism, especially in the Iboih area. However, the existence of this group needs to be supported by a system that supports its sustainability. In the case of community groups in Iboih, the existence of these groups is strongly influenced by the presence of a person as the group's driving force. When the person moved from the village, the result was that the group could no longer operate, thus affecting the sustainability of Proklim activities in Iboih.

Regarding the existence of community groups, Aceh has social capital that can support community resilience to climate change. One of them is the Panglima Laot Customary Institution, as an alliance of indigenous peoples. This institution , which functions as the manager of coastal areas in Aceh. Panglima laot is a forum for community participation in governance and development and an institution that provides guidance to the community and resolves social problems related to the customary law of the sea. The study shows that this institution is also proven to create an environment that allows the realization of community participation in the management of coastal areas (Wilson & Linkie, 2012).

There are three "families of research", which have been defined as a basic approach of social capital. First, this approach define social capital as networks that used to access resources or goods; second, focusing on the ability of social capital to facilitate "cooperation and mutually beneficial collective action"; the last approach point out the capacity of this term to cooperate action in the certain groups by integrating between norms and networks (Ramos-Pinto, 2015). Social capital is one of aspects of perceived resilience to climate change (Smith et al., 2012).

In addition, the customary law of the sea that the community has applied for generations also shows the application of the principle of sustainability, for example, the prohibition of using fishing gear that is not environmentally friendly (trawl) and the prohibition of disposing of waste including catch/fish waste into the sea because it will affect the quality of coral reefs. Violation of customary provisions also has consequences. The customary law of the sea balances economic functions and environmental functions (Sulaiman, 2009). This balance shows that the customary law of the sea has implemented sustainable marine resource management (sustainability). Collaboration between local wisdom that has been trusted by the community for generations and supported by government policies that pay attention to the interests of the community has the potential to realize sustainable coastal area management (Safrina, 2015). The Panglima Laot Institution as social capital is aspects of resilience to climate change and it can be a potential for the sustainability of Proklim. Research by Rosemary, et.al shows the role of Panglima laot in communicating climate change by using customary law of the sea which is sourced from local wisdom of the community (Rosemary, R, 2022). Furthermore, the customary law of the sea applied by Panglima Laot can also prevent the exploitation of coastal areas and can avoid damage to coastal ecosystems so that the sustainability of coastal areas can be maintained (Salim, A. Mahdi, S, Rosemary, 2014).

Understanding the extent of impact in the planning process is very important to identify the various programs that affect the intervention level, whether they

should be addressed locally, regionally, or internationally. The adaptation program in Bangladesh clearly shows that although climate change is a global issue, the impacts of climate change will directly affect communities in certain areas, so that the handling must be done locally by involving the affected communities. Furthermore, one of the supporting factors for the success of the adaptation program is the role of the community because the community is the most vulnerable group and directly experiences the impacts of climate change, so that their involvement at various levels is necessary.

Involving the community in development is a democratic step to realize more effective, responsive, and informative policies and can develop psychological and educational aspects for the community (Dakin, n.d.). Ostrom stated that community involvement in forest area management is important, considering that forests have economic, social, and environmental functions and coastal areas. Furthermore, it is said that the involvement of various stakeholders in the management of natural resources can help avoid excessive exploitation of natural resources, which will impact the destruction of natural resources and eliminate their function as a component of the ecosystem (Ostrom E., 1999).

3.4 The current development of Proklim

Several studies evaluated the implementation of the program. Faedlulloh (Faedlulloh et al., 2019) in his research concluded that the implementation of Proklim has shown good results, but the development of adaptation and mitigation programs by the community is still very limited so it is feared that it will be difficult to deal with the very complex impacts of climate change. Meanwhile, Gunawati and Rejekiningsih (Gunawati & Rejekiningsih, 2020) concluded that the community did not understand the issue of climate change, especially the mitigation efforts launched by the government due to lack of socialization. In addition, it was added that the lack of public awareness of environmental management was also one of the problems in the implementation of Proklim. Research also shows that there is a "negative relationship or an apparent unreal relationship" between community participation and the effectiveness of Proklim. This research is interesting to understand further in the midst of a general understanding of the importance of community involvement in development programs, especially addressing the impacts of climate change.

Based on the results of the research above, it can be concluded that in addition to several successful implementations of Proklim in a number of regions (Muttaqin et al., 2019) (Qomariah et al., 2021) (Priyanto et al., 2020), the study also found various challenges, especially the response of the community in carrying out the Proklim. Mainly related to community involvement in adaptation or how people find solutions to climate change and environmental damage caused by a changing climate that affects their ability to meet their daily needs.

Meanwhile, the latest data regarding the implementation of Proklim in Aceh shows that by the end of 2021, there are 65 villages that have been registered as climate villages, of which 17 are in the Primary category, 38 are in the Middle category, and 10 are in the Main category. Based on the Decree of the Minister of

Environment and Forestry of the Republic of Indonesia SK.401/MENLHK/PPI.0/10/2020 regarding the 2020 ProKlim Award Recipients, Gampong Padang, Manggeng District, Southwest Aceh Regency received the 2020 Main ProKlim Certificate and Incentive Award. , there are several Climate Villages that also won the 2020 Main ProKlim Certificate award, including Gampong Lawe Melang, South Aceh Regency, Gampong Lawe Cimanok, South Aceh Regency, Gampong Koto, South Aceh Regency, Gampong Tetingi, Gayo Lues Regency, and Gampong Lambung, City Banda Aceh (DLHK Aceh, n.d.).

The award is one of the motivations for strengthening the role of Proklim in achieving NDC (National Determined Contribution), although further research is needed to evaluate the Proklim that is carried out including analyzing the effectiveness of community involvement which is believed to be able to realize sustainable achievement.

4. Conclusion

Community participation for climate change can be realized through adaptation programs. The program's success is greatly influenced by the community's understanding of the impacts of climate change that affect their lives. In addition, the community is also expected to participate in planning and implementing programs related to climate change. The success of the NAPA program in Bangladesh is partly due to applying a participatory approach where the community is the planner, implementer, and supervisor of the program and support from stakeholders supporting the program. Proklim is a real step in realizing community participation. The next step is to ensure that the community is ready to play a more active role in Proklim, ensure the program's sustainability, and find social capital in the community as a manifestation of community participation in Proklim. The right word to describe the nature of climate change is uncertainty. It means that climate change is uncertainty related to the impact caused and uncertainty associated with the readiness of the parties to deal with the effects. The challenge is how to deal with uncertainty and create effective programs to address the impacts of climate change. Related to Proklim, further research is needed to evaluate the effectiveness of implementing this program using more complex methods so that good governance in environmental management and protection can be identified in overcoming the impacts of climate change starting from the village/gampong level. The evaluation is also closely related to the program's sustainability, where at the final stage, it is hoped that the community can manage all activities independently in line with their understanding of climate change.

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