Reflections on climate change policy implementation

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Abstract. Climate village can be categorized as one of the Indonesia’s climate change policies to address climate change. The program itself has been implementing throughout the archipelago since 2012. In line with the global strategies, the program conducted adaptation and mitigation strategies to reduce climate change impacts. Based on Howlett, Ramesh & Perl’s perspective, this study aims to reflect the implementation of the climate change policy. The research used descriptive qualitative method. The data were collected through interviews, field observation, and documentation. The results found that there were three main issues needed to be fixed; (1) the sustainability of the program, (2) the lack of community capacity, and (3) the lack of partnership.

1. Introduction
Climate change is a problem for all mankind in the world. Climate change is a reality perceived broadly in many hemispheres [1, 2]. Indonesia is a state most vulnerable to threats and impacts of climate such as floods, drought, and extreme weather. It is also declared in Indonesian national law No. 32 of 2009 on Environmental Protection and Management [3]. Such a condition, of course, needs real action to address climate change. As a part of the nation in the world, Indonesia plays an important role to reduce climate change impacts through climate change policies. One of them is the climate village program [4].

This program is intended as a response and real action to climate change at the local level. The program initiated in 2012 based on Minister of Environment’s Regulation No.19 of 2012 on Climate Village now transforms into a community-based national movement of controlling climate change. The integration of the Ministry of Environment and Ministry of Forestry into the Ministry of Environment and Forestry in 2015 was followed by the ratification of substitution regulation through the Minister of Environment and Forestry’s No. P.84/MENLHK/SETJEN/KUM.1/11/2016 on Climate Village Program. This rationale of climate village policy was then complemented with a technical briefing for all stakeholders involved within it, in the form of two regulations issued by the Director General of Climate Change Control Nos. No. P.1/PPI/SET/KUM.1/12/2017 about Guidelines for Estimating Greenhouse Gas Emissions Calculation for Community Based Climate Change Mitigation Action.

The objective of this research is to reflect the implementation of climate village as a climate change policy in Pendulan Hamlet as a selected area from Howlett, Ramesh, and Perl’s perspective [6]. As is known, this hamlet is an interesting local case sample because it has implemented various climate change adaptation and mitigation strategies since 2012. The culmination is that this hamlet won a national award from the Ministry of Environment and Forestry in 2016 for a climate village.
the implementation of the climate village program in a location that has been recognized as a climate village can give real descriptions of the problems encountered.

2. Materials and method

Pendulan Hamlet was chosen as a case study to reflect the implementation of climate village as a climate change policy. Three major methods were employed in this research: interviews, observation, and documentation. A total, six competent informants were interviewed in this research. They were chosen based on a specific criterion or purposeful selection [7]. The data were analyzed qualitatively using an interactive model analysis. The model consisted of such components as data collection, data reduction, data display, and conclusion drawing and verifying. The researchers then put the result of data analysis into categories and narrated descriptively [8, 9].

3. Results and discussion

3.1. Reflections on climate change policy

According to an expert, what a government chooses to do or not to do can be categorized as a policy [10]. A policy is directed to solve certain problems [11]. As a climate change policy, the climate village that has been implemented since 2012 has contributed a great role to reduce climate change impacts. Since then in many locations in Indonesia have implemented various climate change adaptation and mitigation strategies. In relation to this, the Directorate General of Climate Change has conducted statistical measurement, e.g. the result of estimated greenhouse gas emissions reduction.

This strategic position of the climate village program makes it the government’s option to be a community-based national movement of climate change control. Climate village is developed by the Ministry of Environment and Forestry to encourage the public and all stakeholders to participate actively in implementing local action to improve the resilience against climate change impacts and to reduce greenhouse gas emissions. Climate village is located in the administrative area as low as RW (neighborhood association) or hamlet level or as high as kelurahan or village or the area whose people have taken sustainable adaptation and mitigation actions [4].

Pendulan Hamlet is one of the locations that have been recognized as a climate village in 2016. This hamlet has taken many adaptation and mitigation actions to address climate change, from being the initiator of good waste management, saving electricity and water, to optimizing yard to grow traditional medicinal plants to meet household needs, utilize fish pond for water reservoir, and cultivate fruit and vegetable plants to enhance household nutrition and food security [2, 5]. Until today, adaptation and mitigation actions are still running in Pendulan Hamlet. Nevertheless, in the practice, some problems are still encountered in the implementation of climate change policy. The reflections can be explained further below.

3.1.1. The sustainability of the program. Climate village is designed to keep performing sustainably. Nevertheless, the author finds the fact that the sustainability of program following the assignment of a region to be climate village does not run ideally and duly, in the sense that neither innovation nor development has been made to ensure that the actions to adapt to or to mitigate climate change keeps running well. For example, many traditional medicinal, fruit, and vegetable plants are not well-maintained and withered. Some actions to mitigate climate change are even ceased, as well. For example, plastic waste recycling activity that produces plastic handicrafts now ceases. Waste management running previously now works in waste collection activity only and then sells it. Indeed, this is said to be better than ceasing completely. However, the support from those related can be said as very limited to maintain the sustainability of climate village. Meanwhile, local government, for instance, has an important responsibility to encourage, support, and foster the continuity of these adaptation and mitigation actions [2]. On the other hand, cadre building attempt is required among young generations to make the climate village performing sustainably in the future. As suggested by key informants most
activators of climate change are elders. Therefore, the young generation is required to ensure a sustainable village climate.

3.1.2. The lack of community capacity. The primary objective of climate village implementation is to improve the public’s capacity and knowledge on climate change and its effect so that the people are encouraged to take real action that can strengthen the community’s resilience in dealing with climate change and contributing to reducing greenhouse gas emissions. From this, the community’s independence is expected to grow in taking actions to adapt to and to mitigate climate change and to maintain local wisdom values, local potencies, and resources that can support the climate change management and control the environmental damage generally at the local level. However, considering information from key informants, the counseling provided unsustainably to the people, such as seminars or training related to knowledge on recent climate change makes their knowledge on climate change issue not increasing significantly. People’s interest in making innovation related to adaptation and mitigation of climate change decreases. The counseling the local government provides through extension officers has ever been implemented but in the beginning, only sustainability follows. Therefore, the attempt of improving the community’s capacity sustainably is desirable for climate change. The improvement of the community’s capacity and knowledge on climate change is expected to increase their participation and involvement in climate change easier and wider.

3.1.3. The lack of partnership. Climate village, from the beginning, is intended to be a form of control over climate change by encouraging the multi-parties cooperation in the community-based attempt of strengthening climate change adaptation and mitigation at the local level. It means that adaptation and mitigation actions are expected to be maintained sustainably through a strong partnership. One of the important problems found in the implementation of climate village, according to key informants, is the lack of partnership. Meanwhile, climate change is expected to bridge the community’s need and those who can support the implementation of actions of adapting to and mitigating climate change, including improving cooperation between all parties to strengthen the people’s capacity to optimize the potency to develop some activities to reduce the climate change impacts. The partnership has been implemented indeed, but it is only at the beginning of climate village implementation, e.g. providing fruit and vegetable seeds. However, there is no follow-up action thereafter. The key informants expect the presence of close collaboration and cooperation among all parties so that climate village can keep running and be everlasting. It is intended to create a climate-friendly planet for us and the future generation [3, 12, 13].

The findings of current research are real conditions encountered by Pendulan Hamlet as a location with climate village predicate since 2016. Although this study was conducted as a case study, according to key informants’ information such conditions can be found widely in many other climate villages. Therefore, generally, a periodical evaluation should be made to assess the sustainability of climate village practice in the field to obtain real and updated data that can be used in the attempt of making some improvements [14]. According to Howlett, Ramesh, and Perl’s [6] perspective, a climate village as a climate change policy has good policy capacity as it can encourage the implementation of climate change adaptation and mitigation actions at the local level, corresponding to the characteristics of each region. Nonetheless, some improvements are needed to improve the policy capacity of climate villages to provide maximum policy outcomes in which climate villages can develop better and sustainably.

4. Conclusion
Climate Village as a climate change policy should be maintained because it successfully encourages many people to take various strategies to adapt to and to mitigate climate change. Nevertheless, considering the result of research conducted, some aspects still need improvement in order to make this climate change policy performing better. It is particularly related to the sustainability of the program, the lack of community capacity, and the lack of partnership. If some of these aspects can be improved, the attempt of mitigating the effect of climate change optimistically will work more maximally due to
sustainability, community’s adequate knowledge, and good partnership, all of which are in the framework to maintain sustainability. We should understand that climate change is not an overnight effort but a sustainable one inherited from one generation to the next.

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