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The Role of Women As Environmental Activist in Resolution of Environmental Conflicts for Sustainability of City

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Abstract

Climate change and unplanned urban development has led to environmental degradation until the occurrence of environmental disasters, either ecological damage, flooding, landslides, and the spread of disease. The environmental degradation also leads to limited natural resources for the community that caused the environmental conflict in an urban area. For resolving environmental conflict needed citizen's role in activities of environmental communication, especially participation of women. Although the majority of victims of disasters because of climate change are women, but women are more adaptable to changes in the environment than men, so that women can be agent in the face of environmental conflict. This study aims to describe the role of women activists in resolving environmental conflicts caused by environmental problems through environmental communication activities. Research conducted by the mix method, combining quantitative and qualitative approaches in research procedures performed. Research location in Jakarta and Kota Tasikmalaya. The data collection by using survey, the literature review, observation, and in-depth interviews. Respondent selection technique is purposive sampling method, with the criteria of the respondents are women citizen who became an environmental activist in urban areas. The result of this study is the women who become environmental activists have important role in mediation for environmental conflict resolution and environmental awareness activities for sustainable environmental management.

Keywords: environmental activist, environmental communication, environmental conflicts management, gender perspective, sustainability of city

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1. Introduction

The impacts of climate change have complexity of human live problems and related to human security aspect. Climate change and global warming that occurs causing an increase in natural disasters and environmental degradation. The environmental degradation also leads limited of natural resources for the community so that caused the environmental conflict in an urban area [4]. The condition of environmental conflict often leads to social conflict.

A lot of cases environmental conflicts because effect of climate change. In 2004 in Darfur, Sudan, environmental conflicts happened because of climate change with effect of water scarcity and drought. The solution for the conflict over land and water in Sudan with sustainable environmental management [28]. Similarly, conflicts in Ethiopia because of drought and water shortages effect of climate change, also environmental conflicts occurred in Bangladesh, it because of flooding and scarcity of clean water [11]. It happened also in DKI Jakarta, Indonesia, as a city crossed by 13 rivers, with the biggest river is Ciliwung river has the most extensive impact when the rainy season. Because Ciliwung river flows through the center of Jakarta and across many villages, dense housing, and slums. Ciliwung river is a river that suffered the most damages compared to other rivers flowing in Jakarta. This condition causes in Jakarta is often flooded in the rainy season, with in 2013 was happened 22 times the floods. Beside of that, based on data from the Indonesian Ministry of Health (2014) show that in 2010–2014 in Indonesia there have been around 1,907 disasters, consists of 1,124 natural disasters, 626 non-natural disasters, and 157 social conflicts. While in 2009-2013 occurred 442 flood events, 239 events landslides, 187 the tornado, and 137 events of social conflict.

The focus in this study about conditions related to climate change, water scarcity, and flooding became one of the causes of insecurity environment condition. This condition need to be considered in the context of environmental security, as one of kind of safety in human security aspects. Because, when there is insecurity will be impact to social environment, it caused of environmental conflict because of vulnerability and difficulty to obtain natural resources. In this study, environmental conflict is a conflict caused environmental degradation or ecological damage.

The cause of climate change is caused by human behavior [16]. Based on anthropocentric perspective, the development of the city without proper planning will increase degradation of environment. Beside of that, excessive consumption patterns and indifference in environmental management in urban areas lead to failure to

achieve the sustainability of the city. In the sustainable development, natural disaster management should be integrated with management of the geographical conditions, geological, ecological, hydrological, demographic, also anticipating of climate change and environmental degradation. Mitigation and anticipation requires a sensitivity analysis of conflict, both related to environmental issues or natural disasters caused by climate change [19]. One of the form of mitigation and adaptation to climate change with activities of environmental management, included watershed management. Watershed management should be managed in an integrated manner from upstream to downstream to anticipate environmental problems and natural disasters. Citizens' role in activities of environmental communication very important for resolving environmental conflict. In an effort to strengthen the community and in order to realize the environmental security, environmental communication intervention is required in the management of the environment with community-based.

The challenge of climate change is humanity problems for the global context, but it still not equally for the impact. The impact of climate change is still in locally context [20]. The majority of victims of disasters because climate change are women and children, with average of 60% on the disastrous events in various countries (UNDP, 2013). However, women are more adaptable to changes in the environment than men, so that women can be agen and perpetrators in the face of environmental conflict caused environmental degradation [1]. Citizens' role in environmental activities had been arrange in Act No. 32 of 2009, in article 67, outlined the importance of active participation of all citizens, even obliged to preserve the function of the environment and control pollution and/or damage to the environment. It is also in article 70 paragraph (1) about the importance of women's access to engage in mitigation and adaptation of climate change impacts through environmental management.

Women have capacity as agent in environmental activities in their area, as in Asteria et al. (2014) that in order to achieve environmental security, the role of women activists very important to lead environmental communication activities with a gender perspective. Conflict management based on environmental communications made by women citizens as environmental activist will bridging fairness in policy making. Women not only as objects but also as an actor. The ability of women's environmental activists in conflict management through environmental communication is needed to cope and resolution of conflicts caused environmental disasters and environmentaldegradation (p.561).

In this paper, the study aims to describe the role of women activists in resolving environmental conflicts caused by environmental problems through environmental

communication activities. Novelty in this study is the integration of environmental education to citizens and environmental communication in gender perspective in resolving environmental conflict to achieve sustainable environmental management.

2. Conceptual Framework

2.1. Climate change and environmental conflicts

Climate change causes damage of environmental and scarcity of natural resources, that impact poverty in community because of the difficulty of getting natural resources. This conditions caused human insecurity and it relates to human rights to getting welfare [16]. Climate change may lead to conflict [5, 14, 17, 25]. Similarly, the occurrence of a natural disaster can trigger potential for conflict, both environmental conflicts and social conflicts ([21]. Environmental conflict in this study about conflict over the use and management natural and identity of natural resources. Conflict related with vulnerability and poverty as impact of climate change, through disaster and another environmental degradation. The concept of human security has an emphasis on the protection of human freedom, where freedom becomes fundamental in human life, as prevention of the threat or adverse situations. On the concept of human security, there are seven dimensions of security types, namely: (1) economic security (threat of persistent poverty, unemployment), (2) food security (threat of hunger and famine), (3) health security (threat of unsafe food, malnutrition, lack of access to basic health care, deadly infectious diseases), (4) environmental security (threat of environmental degradation, resource depletion, natural disasters, pollution), (5) personal security (threat of physical violence, crime, terrorism, domestic violence, child labor), (6) community security (threat of inter-ethnic, religious and other identity-based tensions), and (7) political security (threat of political repression and human rights abuses) [31]. Environmental security can be defined as a human protection both short-term and long-term from threat of environmental degradation and scarcity of natural resources [21].

Related with concept of environmental security, including aspects of water security that has connectivity or networking with other security aspects. In Zeitoun (2011), water security has associated with aspects of other security related to human security. Because of that, each element has to be complementary and interconnected among each element of water security, including community security, state security, energy security, food security, climate security, and the security of water resources. This

conditions include of the relationship between the security aspect with the trigger conditions of conflict when there is in an unsafe condition, also the linkage between the scarcity of natural resources with conflict due to a struggle for resources due to a gap between supply and demand [5]. So that, it's very important to resolved with balancing each aspect (see Figure 1).
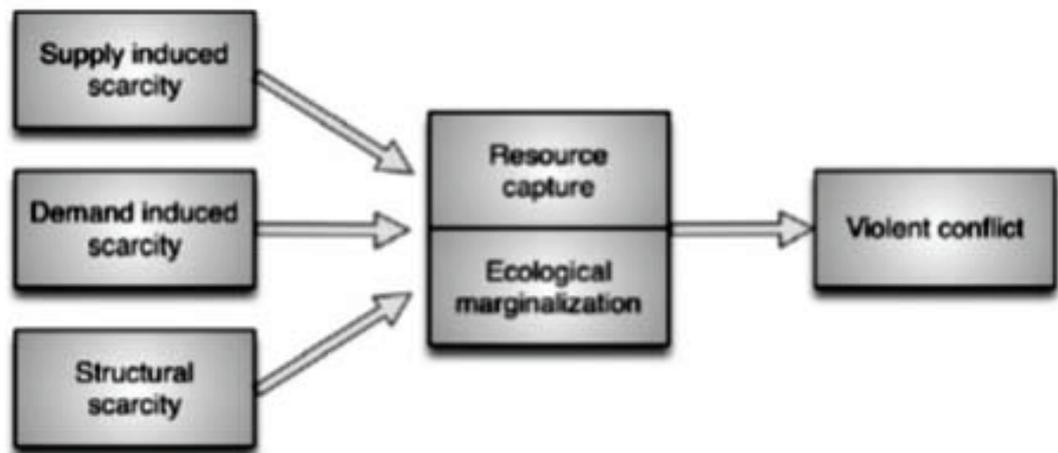

Figure 1: Related between environmental scarcity and violent conflict. (Source: Bernauer et al. (2012)).

Environmental conflicts are closely related to human activities and human paradigm regarding environmental conditions. In Baiquni (2008), in theory of environmental conflict, there are concept of NIMBY (Not In My Back Yard) syndrome shows, conflict is rooted by the removal of problems elsewhere with emergence individualistic attitude, where people do not want to bear the surrounding problems due to environmental conflicts. Related with environmental security and addressing human security in the way to solve of conflicts, gender aspect becomes important to access to justice, according to the study Reardon (2010), Detraz (2009), and the Beijing Conference (1995). Also in Spring (2008), concept HUGE (Human, gender and environmental security) highlight the aspects of human security with a holistic approach to achieve survival strategies and to prevent discrimination and improve women's participation (see Figure 2).

In Figure 2 related to environmental security, the participation of citizens is very important as an effort to overcome the insecurity environmental conditions as the effects of global climate change. Mitigation of disasters is essential in preventing the long-term impact of social and environmental degradation, which can lead to conflict and famine. Then related concepts HUGE, the gender aspect of security is the social construction of women's position in order not to become victims of natural disasters and environmental problems caused conflict environment. Women can collaborate and participate in building their survival, through the improvement of the welfare of the
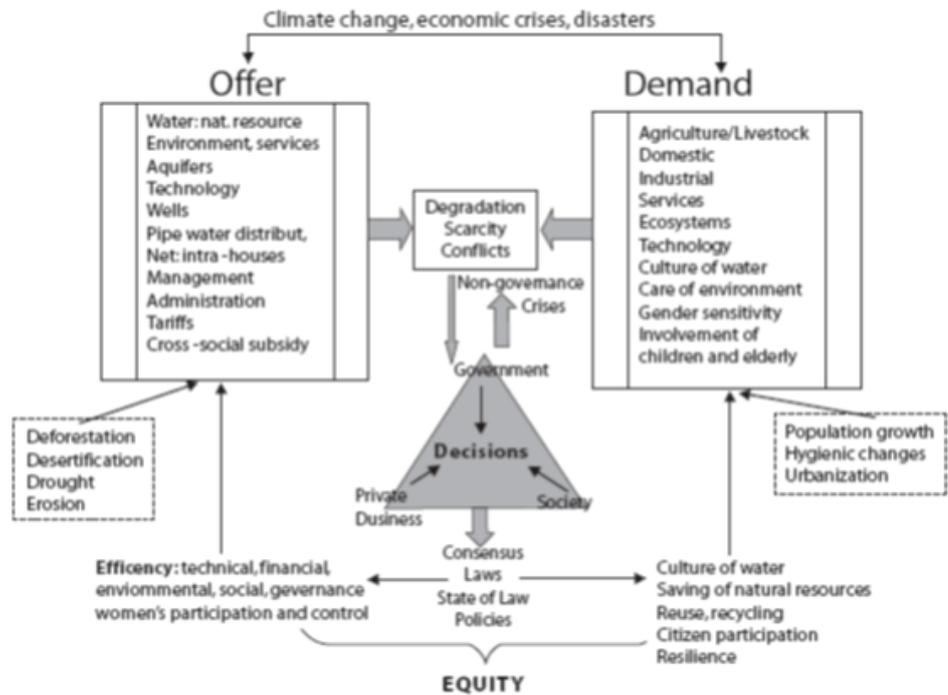
Figure 2: The linkage of women's participation in efforts to resolve environmental conflicts caused byclimate change (Source: Oswald and Sandoval (2006) as cited in Spring, 2008).

family and their home communities. Besides of that, women can conduct activities that can maintain the stability of the environment for the survival and future of the children.

Mitigation and adaptation to climate change are the ways to reducing the impact of climate change and the conditions of triggering a environmental conflict. It is necessary that citizens have the leadership and future thinking in mitigation and adaptation activities [17]. Conflict management have steps that's need to take by the offender or a third party in order to steer the dispute towards a particular outcome to settlement of the conflict in conducive ways to calm, positive, creative, agree, or aggressive. In conflict management can involve self-help, cooperation in solving problems (with or without the help of a third party) or a decision by a third party [10]. Communication plays an important role in conflict management, include in environmental conflict management. Environmental communications activities will reduce misunderstandings when mediation and negotiation between parties in conflict [3]. In approach to conflict management, refers to the communication patterns (including the behavior of) the actors and how they affect the interests and interpretations of the conflict, including the role of women in conflict management [12]. It related with environmental communication in Cox (2008), all activities related with efforts of individuals, institutions, communities, and culture form, deliver, receive, understand, and use the message and information

about the environment itself and the mutual relationship between humans and the environment/physical or natural, including artificial environment.

3. The Role of Women in Environmental Communication for Environmental Management

The concept of citizen empowerment is assumed to come from the concept of human security that focuses on human capabilities, as one of the principles of human security is a human being as the center. Women's participation in mitigation and adaptation of climate change need to be optimized with a policy that uses a gender perspective, including providing access to women to get involved in resolving the conflict, include environmental conflicts [24]. On Convention of Beijing, relation between women and the environment need to be considered related to the eight goals the millennium development goals (Millennium Development Goals/MDGs). In 2015, MDGs were directed to provide basic education for all girls and boys, promote gender equality, and empower women also preserve the environment [35]. Women's involvement in environmental issues is raised by ecofeminism perspective rooted in feminist theory and spiritual ecology, in comprehensive approach [30]. In Ellis (2002) also shows that the elements of society were most responsible for environmental conservation is at the household level. Conditions affecting the involvement of citizens at the household level due to endogenous factors such as relationship/relationship in social, institutions, and organizations, whereas exogenous factors consist of policies and trends, as well as threat/nuisance in community.

The results of research conducted by Malone (2007), the role of women as actors in environmental management, they can mobilize and lead the people in their communities to manage the environment, with the backdrop of the aspect of personal, social, and spiritual as result of interaction between women's experiences with the environment. Women as perpetrators of pro-environmental actions become agents of change in their community. Women have the leadership and was instrumental in the recovery of the environment, particularly the impact of natural disasters [8]. Women also have an important role in achieving water security to become a manager in watershed management for the stability of the watershed conservation and watershed restoration (Asteria et al., 2016, p. 91).

4. Method

This study conducted by the mix method, combining quantitative and qualitative approaches in research procedures performed. In this study also used multi-stage method, whereby when the first aims of research are achieved then it will begin to be able to go to the next destination. In this study, the type of research is descriptive explanative, with a focus on environmental conflicts caused by climate change, either in the form of floods, water shortages, and the problem of garbage after the flood.

5. The Research Location

Research location are in Jakarta and Kota Tasikmalaya. Assumption of choosing for Jakarta and Kota Tasikmalaya because of in both areas have special hydrologic conditions (area of the city be passed by the river) and frequent floods. The scope of research is urban development, with the focus of the cities because of the city issues as building environment. Nowadays, the issue of cities getting more complex with the limitation of natural resources, the space limitation (settlement), and the limitation of environment supporting power.

6. Data Collection

The data collection by using survey, the literature review, observation, and in-depth interviews. Respondent selection technique is purposive, with the criteria of the respondents are women citizen who became an environmental activist in urban areas. Data was collected by means of:

a. Survey, with distributing questionnaires to 100 respondents of women citizens' in DKI Jakarta and Kota Tasikmalaya (each area of 50 respondents), with a purposive sampling techniques (non-probability). The criteria for respondents are women citizens who become activists for environmental protection activities in her community and has been actively engaged in environmental management.

b. In-depth interviews to two informants in Jakarta and Tasikmalaya, with selection techniques of research subjects are purposeful method. The criteria informant is almost the same as the selection of respondents (in point (a)), namely the citizens of the women who become women activists care about the environment in the community, more than two years has been actively engaged in environmental

management, and become a leader in activities of environmental communication in their communities.

c. Distributing questionnaires to four persons' experts in environmental and natural resource management field. There was informant from the ministry of environment and forestry of the Republic of Indonesia.

7. Analysis Method

Data obtained from questionnaires were analyzed using descriptive statistical analysis. In order to quantitative data, prior to analysis to test the reliability and validity test. Validity test by using factor analysis with KMO and Barlett's Test, shows value of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy amounted to 0.672 with sig. 0.00, indicating that the data is valid. Then reliability test results with analysis of the results obtained Cronbach alpha, value of alpha is 0.673 which indicates that the data is reliable. It shows data can up to next step to analysis with descriptive statistical analysis.

Data from in-depth interviews were analyzed with the coding process followed by thematic analysis technique. Beside of that, distributing questionnaires to four experts/resource persons, whose data analyzed using AHP (Analytical Hierarchy Process) with Expert Choice software tools, which followed a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats Analysis) for determining the strategy.

8. Results

8.1. Result of statistical analysis

Environmental conflicts that occur due to flood because of climate change, are more prevalent in Jakarta compared Tasikmalaya. At research sites many cases of environmental conflicts in Jakarta with the location of the citizen who live near the Ciliwung river reached 13 cases, while in Tasikmalaya with location near Citanduy river have 6 cases. Types of environmental conflict that occurred in the community of residence of respondents, due to several conditions: (1) social jealousy and competition for land, (2) lack of clean water, (3) air pollution due to smoke the plant and the smell of the slaughterhouse animal, (4) the problem of waste, and (5) as a result of the flood of garbage dumped into the river. While the conflicting parties in environmental conflicts that occur due to the conflict between citizens with another citizens as much

as 30.76%, between the citizens and the industry/company around their community as much as 48.95%, and the conflict between the citizens with sector of private who invest in open fields in the neighborhood respondent as much as 20.27%.
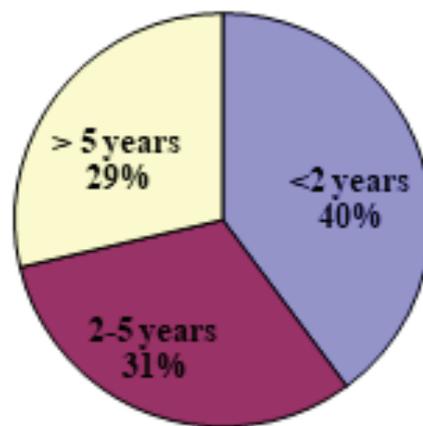
Figure 3: Duration conducting environmental concerns activities proactively (Source: from data analysis).

Based on Figure 3, the length of time the respondents being environmental activists who actively manage the environment showed 39.86% in less than 2 years, 31.46% who were 2-5 years, and 28.67% who have been doing for more 5 years. The motivation of the respondent as an environmental activist from personal awareness reached 59.44% and are due to the demands of the organization as much as 18.18%. Background of women's motivations to be activist because of 78.32% of respondents have knowledge on environmental issues caused by increasing population, land use is not appropriate, water shortages, and pollution of land. While 21.67% realize about condition of quality decline of the city due to lack of green space in public area, and waste problems.

In Figure 4 shows the participation in mediation for the settlement of environmental conflicts more done environmental activists in Jakarta than in Tasikmalaya. According of data, there are 57% of women in Jakarta locations participating proactively in environmental communication activities, while at the site of Tasikmalaya there are 43% of women. The involvement of women's activist in mediating for conflict resolution with actively directly as much as 55.94%, which is not directly involved as much as 18.18%, and as much as 25.87% were not involved. Then, environmental management efforts to solve environmental problems that occur in the community of residence of
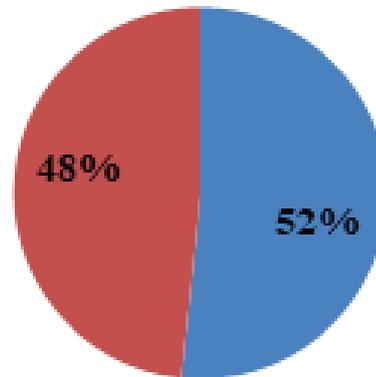
Figure 4: The participation rate of environmental activists in Jakarta and Tasikmalaya in mediating the settlement of environmental conflicts (Source: from data analysis).

respondents, there are 55.94% conducted from the initiative of citizens and 44.05% from the initiative of the local government. Then, parties involved in the resolution of environmental conflicts that occur, there are 33.56% can resolved by voluntary by citizens, by government intervention as much as 45.45%, and the role of NGOs as much as 20.97%.

The activist effort to educate citizens with proactively conduct environmental communication activities in community as much as 48%, training activities as much as 30%, part of the program of activities of the PKK as much as 8%, 10% with voluntary work for conservation, and there are 4% with craft fairs recycling of waste products. While environmental communication activities undertaken by women activists for environmental management activities is most often done are prevention/anticipation of environmental pollution with amount of 92.9%.

9. Result of Analytical Hierarchy Process (AHP) and SWOT Analysis

The method of Analytical Hierarchy Process (AHP) analyzed the five criteria of stakeholder's support for environmental communication: the criteria of environmental education, socio-cultural and spiritual criteria, the criteria of political will and commitment, attitude and behavioral criteria, and the criteria for the welfare of the citizens. The results from matrix of pairs in goal criterion (with aspect of support environmental

communications from stakeholders to the activists of women in conflict resolution urban environment) indicates that the criteria of environmental education have priority weight (Eigen vector) high, indicate 0.251. The criteria of social, cultural and spiritual amounted 0.226 and the criteria of political will and a commitment with score 0.215. While the two criteria with the lowest priority of the five criteria that selected are the criteria attitudes and behavior with score of 0.156, and criteria for the welfare of citizens with score 0.152. While on the priority sub-criteria, for sub-criteria of policy with eigen vector with score 0.443, the sub-criteria of programs and activities with score 0.357, and sub criteria of the rule of law with score 0.200. The value Inconsistency ratio showed score 0.02, it means that the respondents were very consistent in answering the questionnaire study and deeply understand the substance of the research to the level of inconsistency by only 2% (much of which is required by Saaty's Inconsistency index ratio with 0.09). Matrix of pairwise between sub criteria (approach to the criteria by reference) compiled and calculated the weight of his priorities to determine local priorities (local priority).

After AHP analysis, next step are the SWOT analysis showed that the strategy of "defensive" which is in quadrant IV as the best strategy possible for citizen empowerment and gender approach for environmental communications in sustainable environmental management (in the aspect of ecological, social and economic). The focus of the strategy is to do a rescue act so that apart from a greater loss (defensive).

10. Result of Qualitative Analysis

Based on the analysis of data from in-depth interviews with women activist, experience informants 1 and 2 when tried to the resolution of environmental conflicts in their communities done by kinship way, through negotiations and joint control. This is so the problem is not protracted and may provide a useful solution for all parties. The solution to the conflict settlement is done by mutual cooperation by the citizens to protect environmental, clean the environmental, and mediation of conflict through community meetings.

Informant 1 said, a lot of environmental conflicts caused by piles of garbage, especially piles of garbage after the flood cause other problems like the bad smell and problems of healthy. While the experience of informant 2, one of the causes of environmental conflicts occur in the community when there is a shortage of clean water because of dead piped water, which is conflicts occur annually and post-flood. This problem becomes extremely detrimental to the citizens.

"…..conflicts occur around the drains are clogged, due gutter full of trash so flowing water closed by trash. Way to resolve it is to control. If drains have been clogged, then immediately do community work together." (Informant 2)

Informant 1 and 2 along with women citizens in their community have been engaged proactively in environmental management activities, community service, jumantik activities to prevent breeding of mosquito larvae of dengue fever with program of 3's M, road improvement project (PNPM) and the addition of water tower to overcome water shortage problem if PAM die. The jumantik activities carried out each week, as many as four times a month, while the voluntary work to clean environment done once a month.

While the results of in-depth interviews with key informants from the ministries of environment and forestry (KLHK RI), informant called SW, it is known that environmental conflicts also cause conflict among residents. The reason of environmental conflict is due to environmental damage then causing losses for the citizens. KLHK has had a program of citizen engagement of women in environmental awareness activities. SW said, based on data of the results of the evaluation in 2013, in 13 provinces of Indonesia, people's behavior to environmental concerns as much as 80% strongly influenced by women. The behavior of the public to be environmentally friendly or protecting the environment turns behavioral with index 0.57 of a scale of 1. According to SW, women citizen's knowledge in environmental management becomes critical to be explored and developed through participation and provide ease of access to education on an ongoing basis, also provide motivation through the award for their participation.

"Therefore their traditional knowledge is very good, it should be considered and KLHK also provide rewards to them if keep them develop their traditional knowledge to the environment." (Informant SW)

11. Discussion

A gender perspective into one of the important aspects of women's involvement in environmental management activities, including in resolving conflict in the urban environment. Based on results of analysis show the important role of women in resolution of environmental conflict. Women citizen who become environmental activists have a typical way for the mediation and negotiation when resolution of conflict. Persuasive communication supported environmental communication in addressing environmental issues of conflict. The effort to maintain the harmony between humans and nature

from environmental problems, such as flood, is done by maintaining the "territory" of the community to keep the social function, communication, and daily life survival. Women's activist has three abilities to forming a social cohesion in their community: commitment to follow values existing in the society to change the condition of environment, the desire to share, and the feeling to become part of the community. Women activists prioritize communication objectives is done in order to maintain a harmonious relationship. Communication styles of women activists who have a tendency to be cooperative because women have the orientation to maintain a relationship in the future and for the welfare of society as a whole. Mediation and negotiation with the emphasis on dialogue meetings to find out the main issues and conflict resolution for the survival of the people in their communities.

Participation of women, especially women activists in environmental conflict resolution, important in mediation efforts, necessary to facilitate other stakeholders (community and business) to achieve a solution through good environmental management and sustainable. Mediation efforts carried out by women activists through the communications environment can help the conflicting parties to separate personal feelings with various problems and issues, so that negotiations be based on the interests of both sides and launch a process of agreement that benefits both sides or all sides. Environmental communication activities carried out by women activists have the effect of empowering communities to environmental management and environmental conflict resolution. Both of these activities will lead people to gain prosperity and achieve a secure environment. So that, related to the concept of human security, achievement of environmental security became an important element in achieving sustainable development.

The results of analysis about the sustainability index of activist role of women in conflict resolution in the urban environment in the range is quite continuous. This indicates that environmental communication from environmental activists have a major contribution to the citizens in urban areas although still obstacle of social and cultural faced by women activists. Defensive strategies for citizen empowerment with gender approach in environmental communications for sustainable environmental management is to improve understanding of the citizens, especially women in environmental management and resolution of environmental conflict with a variety of activities in community in the form of simulation, socialization, and another activity. Women activist can participate in decision making and control towards environment, this will give advantages for the sustainability of family, community, and physical/natural environment. The capability of women to lead the residents also appears in their capability

to facilitate, mediate, communicate, and coordinate the activities of environmental management as one way in resolution of environmental conflict in the community by paying attention to various interests.

Based on the findings of the research, to seek environmental conflict resolution is with improve the ability of citizen's mitigation and adaptation from the impact of climate change. Mitigation efforts and environmental conflict resolution can be done with environmental management, especially in watershed management to prevent flooding. There are two important aspects to achieve environmental security through protection and empowerment measures. For protection measures requires support from stakeholders, especially the government with support the empowerment of citizens. Empowerment of citizens can be done by civil society activists as do women who have the ability to motivate other citizens to participating in environmental management. Women activist also have been participating in mediating environmental conflicts.

The integration of gender aspects in mitigation climate change with environmental management and water conservation with participation of citizens based. Women must be equal partners and is active in environmental management. Because women have valuable knowledge and should be included in environmental management for the sustainability of city. Women as offender pro-environmental actions become agents of change in their community to manage environment. The success of environmental management in the city also determined by the involvement of the female gender. It supports the Millennium Development Goals (Millennium Development Goals) about the promotion of gender and women's abilities. Citizen empowerment is done through environmental communication with educational activities of citizens to build environmental awareness. Various environmentally responsible behaviors done by women activist are very much related to the environment information access obtained. This information from mass media, community, and support from the local government which was received by the informants through their involvement in a social organization like PKK and other access. It as background can leads action or activity of doing persuasion in Eco management and the pro-environment education approach. Women are undertaking environmental conservation activities in a sustainable manner by establishing a network system in the community, and finding the relative contribution of the role of resident women in her community through the activities of local organizations and informal activities that dissemination of environmental awareness is done from the 'mouth' through gathering of citizens and religious recitation.

The contribution of women as environmental activists through environmental communication activities to motivate people to care about the environment is very important in supporting the sustainability of the city. Community empowerment has been able to open up entrepreneurial opportunities recycling of waste products, sales of compost, as well as ornamental plants and medicinal plants, thereby increasing the economic welfare of citizens, self-reliance, and achieve better environmental quality, in particular, the sustainability of city.

Support for women activists from the local authorities, NGOs, and other local stakeholders is indispensable not only in environmental conflict resolution. The local government must provide access and facilitate women activists and nongovernmental groups to more intense in environmental conservation. Women citizens need to more involved in activities and decision-making related to mitigation and adaptation to climate change in urban areas. The partnership between the public and the stakeholders (government, business and NGO) in an integrated manner will increase community participation in environmental management and addressing environmental degradation due to climate change. This situation becomes an effective way to resolve environmental conflicts and the achievement of human security in the community.

12. Conclusion

Women as environmental activist was instrumental in mediating environmental conflicts with orientation solutions for citizens' welfare through environmental management. The position of women activists as actors in conflict resolution is deeply intertwined with their ability to undertake environmental communication. To resolve environmental conflicts, indicate, the role of women environmental activists today needs to be optimized. Besides can be play a role in addressing environmental conflicts, women also have a key role in dealing with disasters, both protection, and post disaster recovery. In addition, women have adaptability and strategy of innovation to face the effects of climate change. Knowledge of this will be shared by women to other residents, so it is very important to optimalization the role of women in climate change adaptation. So to support sustainable development, economic, social and environment must be integrated within the mechanism of mitigation and adaptation of climate change impacts. The way to increase participation of women with improve the ability of women citizens, empowerment by providing knowledge and socialization skills through awareness, education, and advocacy.

However, the role of central authorities, local authorities, NGOs and stakeholders needed for the empowerment and ease of access for citizen's participation of women. Empowerment policy interventions in the form of an environmental education program to increase the intensity of the learning process for women so that an understanding of the environment will be increased. In addition, excavation about women citizen's knowledge (related with indigenous) as local knowledge and environmental conservation collaboratively needed for achieve sustainable management both in ecological, social, and economic. Recommendation of the study is the formulation of policies with more gender-sensitive to build an equal partnership of women and men as perpetrators in the various elements of development, including environmental conflict resolution. For the next research, in order to more elaborating regarding the position of women in strengthening the security of citizens in a community by using an interdisciplinary approach to explore of the situation and the context of environmental conflict.

Acknowledgements

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