

The roles of religion in participatory development communication in the environmental issues in Indonesia

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Abstract: Being a country with abundant natural resources and a large population, Indonesia faces an environmental crisis that needs to be addressed immediately. In addition, Indonesia also has much local wisdom within cultural and religious traditions. The local wisdom plays an important role in dealing with the social transformation and environmental crisis. This study tried to compare the multidisciplinary perspective in the environmental issue. Conducted in the highlands of Dieng, Central Java Province, this study sought to see how religion plays role in the participatory development communication in maintaining the environment in Indonesia. Religion's roles in dealing with environmental issues can be understood through the concept of participatory communication. The role of religion in participatory communication takes place through faith-based organizations, religious meetings, and places of worship. Religion is a factor that encourages the creation of effective communication, create knowledge and build communities in a sustainable environment. Ethnographic methods were used to find out the phenomena that occur in this study.

Keywords: participatory communication; development; religion; environment.

Introduction

Indonesia, an agricultural country with tremendous agricultural potential, faces many challenges, especially environmental damage. One area that has a high environmental crisis is in the highland area of Dieng, Central Java Province (Figure 1). Land degradation and deforestation become the main problems in this area. The land conversion into agricultural land caused land erosion up to 9,2 kg/m² (Setiawan, 2012). In addition, plants diversivication also decreased. In the area of Dieng found less than 50 species vegetation per hectar and vegetational diversity index was relatively low (0,81-0,98) (Ngabekti, 2007). This condition shows that there is a problem in environmental damage preservation. Almost all lands in the Dieng Plateau suffered severe environmental damage. Agricultural activities and limited cultivation land in the highland area become the main cause of land degradation and deforestation (Charnsungnern & Tantanasarit, 2017). Environmental degradation in Dieng plateau are important to be addressed immediately.

On the other hand, in the Dieng area there is also cultural wisdom prevailing in the village communities. Dieng, a heritage area of the Hindu kingdom, still leaves a variety of local wisdom, myths and traditions passed

down from generation to generation. The entry of Islam into the Dieng area gave rise to cultural acculturation between Hinduism and Islam around 1736 AD (Salehudin, *et. al.*, 2017). The diversity of cultures and the strong religious teachings adopted by the Dieng community cause people's perspectives and daily activities inseparable from these cultural and religious influences. The existence of cultural and religious diversity in the Dieng community cannot be separated from the development agenda in the social, economic and environmental fields. In the context of culture and development relation, it can be seen that culture and religion also have a very important role in social transformation (Akhda, 2012).

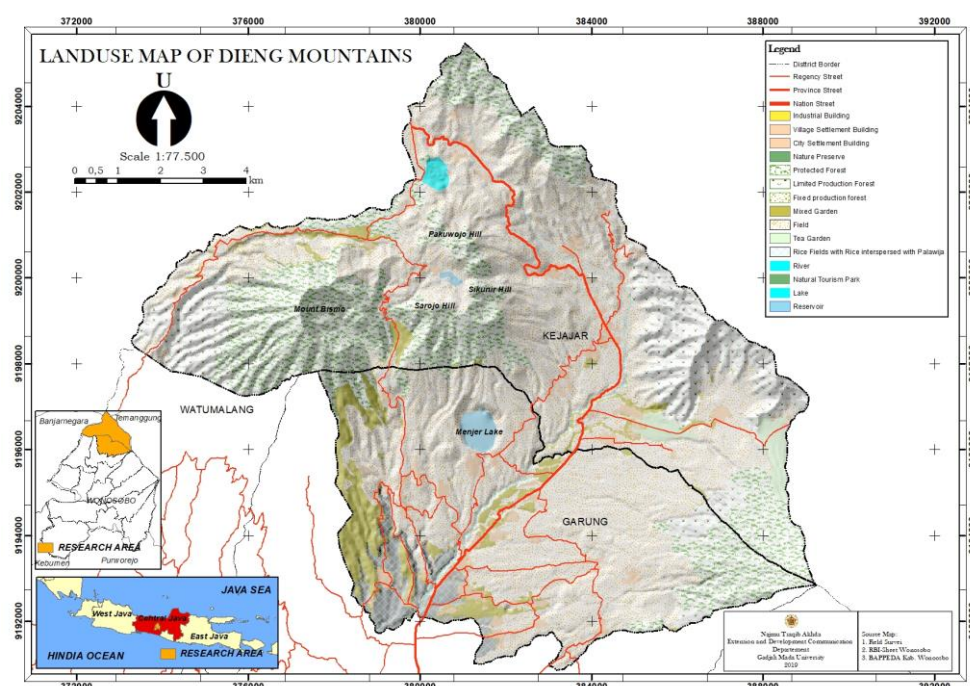


Figure 1 - Landuse map of Dieng mountains, Java Indonesia

People in the Dieng mountainous region are devout Muslims and there are many religious activities carried out weekly, monthly and also yearly. However, the existence of these religious activities has a different correlation to their environmental conditions. Communities with the majority of farmers do different agricultural practices. In Dieng, people grow potatoes (*Solanum tuberosum*, L.) var. Granola on almost all the hills around the village. They assume that grow potatoes is part of worship and the crops are a blessing and can be used to perform the Hajj (annual Islamic pilgrimage to Mecca, Saudi Arabia).

The belief that planting is worship makes farmers try to maximize the yield of potato production. However, this effort caused farmers to convert forests into agricultural land. Such conditions make various stakeholders moved to make efforts to preserve the environment. These stakeholders consist of community leaders, religious leaders, government, and individuals who care about the condition of the community and the environment around Dieng. They began to build communication with the community and do mapping related to problems that occur in the community. This approach is known as the participatory communication approach (Tuft and Mefalopulos, 2009).

In addition, Islamic religious leaders and community leaders use religious and cultural media in communicating the idea of sustainable environmental development. Religious figures interpret religious teachings related to environmental issues. Religious organizations also participated in socializing the idea of environmental conservation. Meanwhile, community leaders continue to preserve local traditions and

knowledge related to environmental conservation. Nevertheless, the community has its own perspective in interpreting the message conveyed by the stakeholders.

Environmental issues in these mountainous areas are a common concern in addition to issues of land degradation, deforestation, spring management, and biodiversity protection (Servaes & Malikhao, 2016). The environmental issue related to climate change is a very important because is related to the survival of living things on Earth (Yoon, 2015). Sustainable human and environmental issues are the main themes in the study of development and social change (Servaes, 2016). An increase in the environmental crisis can threaten economic and social stability that causes human happiness to be difficult to achieve (Le Duc, 2017).

Participatory communication and cultural approach

Participatory communication and cultural approaches become alternative solutions in dealing with environmental degradation. There is no development without communication (Balit, 1988 cit. Srampickal, 2006). Effective communication will greatly accelerate the changes that occur in the community (Wilkins, 2000; Quebral, 1986; Quebral, 2006). The process of open, inclusive and participatory communication is fundamental to the success of sustainable development (Wilson, 2007). Fraser & Estrada (1998) said that the success and failure of the development agenda were determined by two factors: communication and community involvement.

To achieve environmental sustainability requires a multidisciplinary approach involving individuals, groups, organizations, and institutions. Political policies, social and economic reforms, science and technology, and religious commitment are all used to help save the environment (Le Duc, 2017). At a conference organized by the Southeast Asia Research Center (SEARC), Hong Kong University and Chiang May University in collaboration with the World Bank and Wageningen University in 2015 came up with a conclusion about the importance of the role of communication and culture in the context of SDGs, especially in the ASEAN region. The role of culture is also contained in the 2030 SDGs agenda which deals with education, environment and economic growth (Servaes, 2017).

Methods

This study was a qualitative study using a field study technique or also known as ethnography or participatory observation research (Neuman, 2007). This approach is a part of qualitative research where researchers observe and engage directly on a small scale. The purpose of ethnography is to obtain the point of view of the native community, its relationship to life, and to understand its perspective on the world (Malinowski, 1922, cit. Spardley, 1979; Goldbart & Hustler, 2005).

This study was performed in the mountainous region of Dieng, Wonosobo Regency, Central Java Province (See Figure 1). To determine informants, researchers used snowball sampling techniques (Neuman, 2007). The informants included village officials, religious leaders (RL), community leaders (CL), non government organization agent (NGOA). Data collection was done through observation and interviews (Neuman, 2007; Cresswell, 2009). The observation was done by seeing and listening to everything in the location. The objects observed included all things seen including the condition of the land, the communication process, religious activities, culture, and behavior that exist in the community. The objects listened included words, sentences, accents, as well as what is conveyed and the ways to convey. The interviews were conducted with the informants at the agreed times.

In analyzing data, researchers performed reflection on all obtained data, provided analytical questions, and wrote important notes. Furthermore, researchers began to organize and prepare data to be analyzed including transcribing the results of interviews, compiling field notes, and compiling various data obtained from observations and interviews (Creswell, 2009). The next step was to read the entire data, including understanding what the participants were saying, starting to link the data with the purpose of the research, and writing down the analysis. These activities took place during the study process from January to June 2018.

Results and discussion

This study found the role of religion in the implementation of participatory communication made by various stakeholders in sustainable environmental conservation. Meanwhile, the analysis in this study focused on the role of religion in the process of participatory communication such as the role of faith-based organizations, the role of religious activities, and the actor's approach to moving the community (Melkote & Steeves, 2001; Servaes, 2017; Heynes, 2007).

To be able to understand the form of participatory communication in a community, Yoon (2015) said that it has to be done by looking at the clusters in participatory communication. The clusters are effective communication, knowledge formation, community development, and action. The roles of religion are then seen in these clusters.

Effective communication

The first finding is that the actors utilize prior experience to communicate with the community effectively. The experience of actors in making contact with the community has influenced the relationship between actors and society. The actors' experience is implemented in the form of attitudes when approaching the community. The attitude in interacting with the community influences the community's involvement in every social activity and rural empowerment.

The actors' experience is obtained through various community assistance activities and the results of discussions with researchers and academics from various universities. The partner researchers are from domestic and abroad. In addition, the knowledge and experience gained also come from the experience of research activities performed together with academics and self-observation in the field.

One of the actors, NGOA, said confidently that the beginning of approaching the community is very difficult. However, according to him, the key is how to establish good relationships with the community such as visiting people's houses, greeting people around and listening to what they complain about.

Another factor that causes effective communication between NGOA, CL and the community is the background of the faith-based organization. NGOA and CL are the active members of the Nahdlatul Ulama organization, one of the biggest faith-based organizations in Indonesia. The community in Dieng village is also a member of the organization. This makes it easier for actors to communicate with each other because they have the same organizational background.

In addition, in communicating with the community, the actors also emphasize the importance of using nonverbal language such as self-expression. Self-expression is very important in relation to effective communication. NGOA said that when interacting with the villagers, they should always smile, greet them, and be polite. In Java, mutual respect for each other has become a norm that continues to this day. Therefore, this norm must be obeyed in order to maintain the continuity of communication.

NGOA emphasizes that the success of a program depends on the attitude to the community so that the following planning and community needs can be recognized and analyzed further. Based on the results of observations and discussions with various researchers, he chose to use a participatory approach. NGOA explains that:

"Entering into a new community environment is difficult, but even so, when we try to mingle with the community, it will be easy. Understanding and listening to what the community is saying is the beginning of the success of a program."

Listening and understanding what is happening in the community is an effective step in starting interaction with the community. By listening to what is conveyed by the community, the community will automatically address various problems that are being faced.

Nevertheless, NGOA explains that there are difficulties in starting to interact with the community, especially in areas that has never been visited at all. In addition, previous bad experiences related to NGOs that entered the village make the community's perception of the actors entering the village also bad. The community was disappointed because there were many NGOs that used activities in the village for their own interests and there was no program sustainability. This causes the communication process no easy. However, with the background of the faith-based organization, it is easier for NGOA to interact with the community.

NGOA explains his role in maintaining relations with the community with the term "regulating the rhythm". The intended rhythm is like playing music. Although the tone is different, it produces melodious music. The aim of "regulating the rhythm" is to make space for the community and not to seem to dictate them. NGOA understands the dynamics that occur in the community. He said, "If they communicate with the community too often they will feel being led and too pushed." What is done by NGOA shows that he wants to provide a space as wide as possible so that people can involve and participate in every activity.

Creating knowledge

The second finding is creating knowledge about how to address land degradation and other environmental issues. The process of knowledge creation is done through a very long process. When the potato plants began to be widely cultivated and became a superior commodity in the Dieng area in 1980, farmers focused on how to increase the its productivity. The certainty of price and high market demand, makes farmers motivated to grow potatoes throughout the year. This agricultural activity causes most farmers to do anything to improve agricultural yields, even during the dry season, farmers use pipes to pump out water from the lake around Dieng.

Potato farming activities have become a tradition that is difficult to leave. Farmers find it difficult to replace potato plants with other crops. This makes it difficult for actors and stakeholders to unravel the farmers' mindset. Farmers already understand the impacts if they keep planting potatoes. However, they still plant it again.

The actors began to think about how to make farmers slowly change agricultural activities that damage the environment. One of the ways is to divert agricultural activities to other activities such as environmentally friendly agribusiness and tourism management. In addition, the community also began to be introduced to waste management around the house. This knowledge creation process has been carried out by actors through religious activities, involving religious leaders, and using worship places as a information media.

Sharing information in religious meetings

Sharing information about environmentally friendly agriculture and high economic value began to be introduced by the actors through various forums. The forums included meetings of farmer groups, women's groups, and weekly religious meetings (Table 2). At the meetings, information delivered to the people includes critical land conditions and approaches to preserving the environment. One of the knowledges is planting *Carica papaya* around potato cultivators (Pradana, *et al.*, 2015). Carica trees are able to withstand erosion rates but do not interfere with potato plants. The rate of erosion can be reduced by the using of carica agroforestry (Pradana, *et al.*, 2015). In addition, the economic value of Carica continues to increase as the number of tourists continues to increase in Wonosobo Regency.

Table 2. Kind of religious meetings

RELIGIOUS MEETING	TIME	PARTICIPANT	PLACE
<i>Yasinan</i> (pray for the spirit)	Sunday night	50 persons (woman)	Home
<i>Berjanjen</i> (reciting Prophet story)	Wednesday night	150 persons (man and woman)	Home
<i>Semaan</i> and <i>tahlilan</i> (reciting Qur'an)	Thursday night	35 person (man)	Home
Lapanan (religious teaching)	Monthly	150 persons (man and woman)	Home, Mosque

The meetings of farmer groups and women's groups are formal meetings held by donor agencies and the government. In the meetings, farmers as audiences are more passive because of their position as forum participants who are receiving information. Meanwhile, meetings in religious forums such as *yasinan* and *mujahadah* (reciting al Quran and praying together) are informal meetings (see table 2). In these religious forums, group members are more active in conveying ideas and responses related to actions to be taken. The information conveyed by the actors are also discussed again in the forums.

Involvement of religious leaders in tourism development

Religious leaders play a role in directing and empowering people. They do not preach religious teachings but also help find solutions to save the environment and develop the community. In addition, religious leaders become a bridge between actors from outside and various stakeholders such as donors and the government. One of RL stated that "religious leaders are very influential in the dynamics of community development". This statement in line with Laka's paper (2015) that religion plays a role in development communication. One of the religious leaders' roles is building tourism knowledge.

Tourism potential in the Dieng area is high. Every week, no less than one thousand tourists come to Sikunir Hill in Dieng Village to see the sunrise. Initially, many people doubted the tourism potential. However, actors from the village already have ideas to develop the tourism potential. The main objective of tourism development is to increase people's income and to provide knowledge that daily income is not only generated from potato farming.

Furthermore, the actors assume that to save the environment and land degradation, farmers and communities need to be introduced to other potentials in the village. For approximately 15 years, the actors pioneered the development of tourism. Gradually, the community is willing to participate in developing the tourism potential.

The process of forming knowledge about the importance of environmental conservation through tourism development is carried out by religious leaders through religious forums. After religious activities, religious leaders begin a dialogue on the issue of tourism development. The audience gives a response for further discussion. They also use networks in faith-based organizations to share ideas and knowledge. The ideas and knowledge gained by the actors are slowly conveyed to the community until finally, both actors work together to address this issue.

Worship places as media for knowledge creation

After an extraordinary increase in tourist visit, the community faces a waste problem. The increasingly accumulating waste causes people to start thinking about how to deal with this problem. In this case, the donor institution takes the initiative to help manage the waste. They collaborate with community leaders and religious leaders to plan waste management.

The concept of waste management has been made by donor agencies. But this concept is then communicated with religious leaders and the community. The results of the meeting concluded that they agreed to share recyclable waste and waste that needed to be disposed of in the final shelter. Socialization efforts to the community are done by installing attractive boards persuading people to manage waste properly.

Some of the attractive slogans include "Garbage free" and "Kids nowadays throw garbage in this place". Board installations are carried out in every entrance hall and gathering places such as religious school so that they are easy to read. Donor institutions also use religious schools as a place to install boards. In addition, in the places of worship, there are also boards attached to the management of environmental hygiene. One of them is "Verily, Allah is beautiful and likes beauty".

The actors use strategic places such as mosques and religious schools so that they can influence the community more. Gradually, the community begins collecting and managing daily waste. Mosques' teenage groups also engage in environmental clean-up activities every week. However, this activity is still in a long process, because it does not necessarily mean that all villagers will manage waste and make it a habit. This can be seen from the fact that there are still people who dispose of harvest trash into the ditch behind the village.

Building Communities

The third finding is building communities through religious teachings and actors' religious background. Religious leaders provide an understanding of the importance of protecting the environment because it is part of religious teachings. Islam and the environment are based on that God is the Creator and Owner of all creation (Makinde, 2018). In the Qur'an, it is stated that humans were given entrusted by God in the form of the earth, therefore humans must guard it. "And cause not corruption upon the earth after its reformation. And invoke Him in fear and aspiration. Indeed, the mercy of Allah is near to the doers of good" (Qur'an, 7:56). Every object created by God on earth has benefits and humans are allowed to take advantage of it. However, in its use it is necessary to maintain a balance in order to remain sustainable. Nature has the right to be preserved because it is God's creation.

This teaching was delivered by religious leaders through various religious meetings and faith-based organizations. The perspective of religion can shape attitudes towards nature and religious institutions can shape its members in behaving towards the environment (Gardner, 2006). Religious teaching can build a reciprocity concept, while religious background enables to build trust in the community.

Reciprocity

In the application of participatory communication, the study of religion conveyed by actors becomes an encouragement to preserve the environment. The community is motivated to preserve the environment according to religious teachings. Religious rituals are not only routine actions but there is a concept of reciprocity (Traube, 1986). In Islam, protecting the environment and maintaining cleanliness are part of worship. In addition, in carrying out the worship, the community also gets reciprocity in the form of comfort and reward.

Reciprocity is a major factor in the success of an activity. People are moved to preserve the environment because there are benefits they will get. In addition to the environmental sustainability that is obtained, people also get financial benefits.

Farmers and communities are motivated to overcome environmental degradation problems because they obtain additional income from processing and managing tourism activities. *Carica* planted around the embankment brings double benefits for farmers, namely as erosion protection and as superior drink's main material. The development of tourism potential is also benefited. Now, many people are opening stalls and guesthouses to serve tourists. While from waste management, the environment around the village becomes clean and healthy.

With the benefits that can be gained from environmental conservation activities, the community started to be active in several activities of tourism conscious groups, agribusiness groups and waste management groups in the village. The community formed gave each other support which is facilitated by the actors.

Trust

Another factor that causes people to be willing to implement the ideas presented by actors is the trust. Effective communication has been carried out by actors from outside the village, causing the community to trust the actor. Until now, the actors still continue to establish communication with the community. Public trust in actors is very high because the actor's track record in every community activity is very good. They always greet residents and the activities carried out bring benefits to residents.

NGOA even explained that "Because of the community's trust in me, people often confide in the various problems that befall them". This trust is obtained not in a short time. NGOA took approximately 5 years to conduct the process of adaptation until it gained the community's trust. In the process of adaptation, it is not uncommon for NGOA to open a partner network with various donor agencies and business people.

In addition, for actors who come from the community themselves, they get public trust because of the background of religious activities. Religion is a social capital that plays an important role in every community activity (Traunmuller, 2011). Social capital is an important foundation in the formation of morality and human perspective.

Most internal actors are religious school alumni who carry out religious activities in the village. They are accustomed to carrying out and becoming movers in various religious activities in the community. This is what facilitates the actors in building communities with the community not only in terms of environmental conservation but also in the field of education and poverty alleviation.

For example, in the field of education, they established formal and non-formal religious schools. They provide religious lessons in the afternoons and evenings to children and adolescents. In the field of poverty alleviation, the actors make the concept of 2.5% alms harvesting which is used to help people in need. Because

of this good track record, the community also increasingly believes when internal actors have ideas about activities related to environmental conservation.

Sustainability

The fourth finding is that religious leader, faith-based organization and religious activities together become a supporting system toward sustainability. From every community development activity, the most important thing is related to the sustainability of activities. From the analysis above, the existence of religious activities, the role of religious leaders and religious organizations are catalysts and dynamists in every environmental conservation activity in Dieng village.

Religious activities are a means of communication for members of the community to discuss new problems and knowledge that the community obtains from various sources. There are reflection and evaluation activities performed by fellow villagers. Religion, in this case, is also an encouragement and a foundation for the community to continue to move into managing agricultural land and preserving the environment.

Conclusion

The results of the study show that religious factors play a significant role in each participatory communication process towards a sustainable environment. This study found four religious factors that effectively play a role in the process of environmental conservation. First, religion plays a role in creating effective communication between actors and the community. Second, religion plays a role in the process of creating knowledge related to environmental conservation. Third, religion plays a role in community development. Fourth, religion plays a role in maintaining the continuity of communication between actors and the community as well as in environmental sustainability.

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