



EXPLORING THE STRENGTH OF LOCAL WISDOM IN EFFORTS TO ENSURE THE ENVIRONMENTAL SUSTAINABILITY

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ABSTRACT

Local wisdom is a form of environmental wisdom that exists in social life in a place or area. The local wisdom places the natural wealth for the sake of the communities in a sustainable manner. Therefore, local wisdom has a very important role in protecting nature and the environment. In this context, this article attempts to analyse how to maintain the strength of local wisdom in an effort to preserve the environment. This study concludes that the development of local knowledge can not be separated from the influence of various factors which will affect human behavior toward the environment. Hence, the strength of local knowledge is important to be preserved in a society in order to maintain a balance with the environment and also to preserve the environment.

Keywords: local wisdom, environmental sustainability, indigenous rights.

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1. INTRODUCTION

The existence of local knowledge of each region that held by the local community in Indonesia has existed since generations. Local knowledge can be defined as the values of the local community or behavior in interacting with the environment in which they live wisely and performed continuously with the tradition they follow (Berkes, Colding, & Folke, 2000). Tradition carried as a symbol of local wisdom in each area is certainly different ways to do it, depending on space and time and on the tribe. Local wisdom tradition is known and carried out by the local indigenous people to follow the teaching of values ancestors by continuing to pay attention to the human existence and natural sustainability (Davidson, & Henley, 2007).

Tradition as part of local wisdom in each region which they hold has not necessarily survive continuously and long lasting, because it depends on the social order that they do whether it can be sustained or not by the descendants. The social order is all forms of local knowledge in terms of knowledge, belief, understanding or insight as well as customs or

ethics that guide human behavior in life in an ecological community. All forms of local wisdom are lived, practiced, taught and passed down from generation to generation as well as shaping human behavior patterns towards fellow human beings, nature and deities.

Local wisdom in each region as long as the tradition of the local community is as one of the strengths in order to maintain and preserve the environment. This has been affirmed in General Provisions Article 1 point 30 of Law No. 32 of 2009 that the noble values prevailing in the order of life of the community are to, among others, protect and manage the environment in a sustainable manner. Therefore, the protection and management of the environment must pay attention to the noble values prevailing in the life order of society (Mulyoutami, Rismawan & Joshi, 2009). Thus, local wisdom has gained recognition and awards in order to preserve the environment.

The inclusion of local wisdom in Act of protection and management of the environment, means that the environmental preservation is not just an ethics, but is the norms, actions and behavior, so that local knowledge can paid attention from human being whose acts in daily life, both in the context of daily life as well as determining the human civilization (Cornthassel, 2008).

Local wisdom is actually existed long before the Law No. 32 of 2009. It can be described in the Dutch colonial era with the teachings of the Samin by Samin Surosentiko (1859-1914) in a local community in Blora, Central Java (Benda & Castles, 1969). The Samin's view on the environment is very positive, by using natural (eg, taking the timber) in moderation and never exploit (Darmastuti, Bajari, Martodirdjo, & Maryani, 2016). This is consistent with the public's mind that Samin is fairly simple, not overdone and what it is. Land for them like a mother, meaning that the land gives living to them (Crosby, 2013; Mojo, Hadi, & Purnaweni, 2017). As traditional farmers, they treated the land as well as possible. In land management, they are solely based on the season that is only rain and drought.

Another example is everyday life of the tribe of Baduy in Lebak Banten. They are Baduy not allowed to cut trees indiscriminately, especially trees that are in the protected forest area as necessary to maintain the balance and clarity of the water source (Senoaji, 2004; Ichwandi & Shinohara, 2007). The trees in these areas should not be cleared for anything, including the designation was changed into a field or vegetable and fruit garden.

Subsequently, the people of Bali that has customs and unique culture, is loaded with the concept of environmental conservation that are realized in a common life, who saw the universe not as an object to be conquered or exploited solely for the satisfaction of worldly, but the as a part of life and as the source of the nurture that must be preserved (Hutomo, 2017).

The concept of environmental preservation that are applied in a common life in Balinese society is closely related to the maintenance of environmental sustainability essentially composed of three things, namely the *Tri Hita Karana*, the three harmonious relationship between man and the Creator, between man and fellow human beings and between human with the universe.

From the few examples of the wisdom of local communities that, in last decades, the tradition of local knowledge has faced some challenge from globalization that rapidly shapes people's lifestyles and erode the traditions of local communities that have been used as a life guideline with nature. In this context, this article attempts to analyse how to maintain the strength of local wisdom in an effort to preserve the environment.

2. LOCAL WISDOM

Local wisdom is a form of environmental wisdom that exists in social life in a place or area. It refers to specific locality and community. According to Wahyu (as cited in Mukti, 2010), local knowledge, in the terminology of culture, can be interpreted as a local knowledge that comes from culture, characterized as unique, and has a relationship with nature in a long history, adapting to the system of local ecology, dynamic and is always open to additional new knowledge. More specifically, local wisdom can be defined as a unique local knowledge derived from the culture or local community, which can be used as a basis for decision-making at the local level in agriculture, health, food supply, education, natural resource management and other activities in communities (Mulyoutami, Rismawan & Joshi, 2009).

Local wisdom has a strong social and cultural dimension, because it is born from the activity of human patterned behavior in the social life. Local wisdom can be incarnate in various forms such as ideas, values, norms, regulations in the realm of culture, while in social life it can be formed in religious, and social organization systems, knowledge systems, the system of subsistence and technology and equipment systems.

3. THE IMPORTANCE OF LOCAL WISDOM

In adapting to the environment, people acquire and develop a wisdom that intangible knowledge or ideas, norms, customs, cultural values, activities and equipment as a result of abstraction to manage the environment. Often, their knowledge of the local environment is an accurate guide in developing life in their neighborhoods (Xanthaki, 2007).

The diversity of adaptation patterns to the environment that exist in Indonesian society passed down from generation to generation becomes the guidance in utilizing natural resources. Public awareness to preserve the environment can be effectively grown through cultural approaches. If this awareness can be improved, it will be a huge force in environmental management. In this cultural approach, the strengthening of social capital, such as socio-cultural institutions, local wisdom, and the norms associated with the preservation of the environment is important to be the main base.

The changes in human lifestyle presently have allowed local wisdom increasingly marginalized, although there are some communities that highly emphasize on nature and able to maintain a balance of the environment with local knowledge possessed, even less sense to the economic crisis, as well as with the pattern life influenced by modern life and the era of technology. Therefore, local wisdom is important to be preserved in a society to maintain balance with the environment and at the same time to preserve it.

The resistance patterns of local wisdom depend on the teachings of the ancestors that continuously carried out by the descendants in their communities to manage the natural environment. Local wisdom can survive continuously, if their lives are not affected by the outside community by destroying the teachings that they have been living in keeping with the natural environment. The nature of the life of local communities in taking natural wealth is not done by taking the personal gain. There is a sense that the natural wealth is for the sake of the communities in a sustainable manner. Therefore, local wisdom has a very important role in protecting nature and the environment. This also depends on the policy of the local government to always protect the rights of local communities with all wisdom, and not marginalize local communities as local people have no economic value (Maridi, 2016).

4. LOCAL WISDOM AS A PART OF ENVIRONMENTAL CONSERVATION

Local communities applying traditional way of life in rural areas, which is almost untouched by technology, are generally known as communities of indigenous people, or traditional communities. Local people often consider themselves to be the original inhabitants of the related area, and they usually gather at the community or village level. Such conditions can lead to a distinct sense of ownership between indigenous peoples and new inhabitants from outside, so that local people often become appropriate partners in conservation efforts.

In most parts of the world, more and more local people have interacted with modern life, so their value systems have been affected, and followed by the goods consumption from outside. The shift would risk weakening the value of the original community closeness with the surrounding nature and local conservation ethics. Traditional communities are generally very familiar with surrounding environment. They live in a variety of natural ecosystems in Indonesia, and have long coexist with nature in harmony, so as to know different way of utilizing natural resources in a sustainable manner. They have a specific specialty such as simplicity, rich in folklore and loyalty to the man who is considered the elder and have modesty and piety in behavior as well as the concepts developed in the Javanese society that had been done for generations for the Java community as in its understanding on the God, religion and natural preservation. Moreover, Javanese society holds the concept that the natural wealth does not belong to one person, but belong to wider community.

All that serve as guidelines for the Javanese in acting in daily life, so they always consider the magnitude of the God power and should keep what it has created. In addition, the behavior of people will be guided by the kinds of things that intrinsically have good and bad value as well as the activities that are based on right and wrong. Local knowledge is also manifested in natural and environmental resource management efforts that is also a form of conservation by the public. In that regard, Nababan (as cited in Suhartini, 2009) suggested that the conservation principles in the management of natural resources traditionally is done by several principles. First, respect that encourages harmony of human relationships with the nature (Warren, & Rajasekaran, 1993). In this case, the traditional society is more inclined to view itself as part of nature. Second, the sense of exclusive belonging for the community on a region or a particular type of natural resources as a shared ownership rights (communal property resource). This sense of belonging is binding on all citizens to safeguard and secure the shared resources from outsiders. Third, the system of local knowledge that provide the ability for the community to solve the problems they face in utilizing limited natural resources. Fourth, the adaptive power in the use of simple technology appropriate and energy (input) in accordance with local natural conditions. Fifth, the system of allocation and enforcement of customary rules that can secure common property resources from excessive use, either by the community itself or by outsiders. In this case, the traditional community already has the rules and customary law that govern all aspects of community life in a certain social unity. Sixth, the mechanism of equitable distribution of crops or resources that can prevent the emergence of excessive inequalities in traditional societies. The absence of social jealousy will prevent theft or use of resources beyond the traditional rules and regulations.

5. CHALLENGES TO LOCAL WISDOM

5.1. Population Growth

High population growth will affect the need for food and various other productions to meet human needs. Robert Malthus stated that high population growth is a cause of poverty, because of the population growth rate which follows the geometrical progression will never

be overtaken by the increase of food and clothing that follow arithmetically. The presence of high food demand requires people to increase their production to meet these needs, so as to modernize agriculture by doing green revolution.

In the green revolution, there are need to develop the use of quality seeds, chemical fertilizer, pest and disease, pest control, development of irrigation channels on a large scale for irrigation and the use of agricultural technologies with a tractor to speed up the work. As a result, the implementation of the green revolution that emphasizes the monoculture rice crops with superior seedlings will affect the lives of local farmers in using local seeds that actually have resistance to pests and diseases, manure and organic fertilizers that further are replaced with chemical fertilizers, the use of animals for plowing replaced tractors, the use of natural pesticide from plants for agriculture with chemical pesticide (Röling & Van De Fliert, 1994). Through this government program, peasants appear to be merely objects, in which they are subservient to the will of the authorities so that the right of the peasants to express their attitudes and desires is ignored (Ellen, 2007; Li, 2000; Duncan, 2007).

5.2. Modern Technology and Culture

The rapid development of technology and science caused the culture to change rapidly as well. Furthermore, Su Ritohardoyo (2006: 42) explains that the changes in culture of society is complex, usually manifested in the process of the invention, and through the process of diffusion (spread of cultural elements). Developments are realized, because of innovation in terms of discovery and invention and diffusion of innovation to accelerate the process of technology, industrialization and urbanization. These three components together produce a process of modernization within a society. Modern technology is actually creating a desire and new expectations and provides a way that allows the improvement of human well-being ignored, because most people assume that modern technology always has a level much more dynamic acceleration.

Local technology as a reinforcement of human life actually has a dynamic acceleration, for example in creating jobs and meet basic needs. In addition, to generating local knowledge and technology, modern technology and all its institutional systems also have potential destructive power such as unjust sharing of natural exploitation, pollution of the natural environment and the destruction of socio-cultural value systems (Supriatna, 2008). The integration acceleration from local to global, supported by various forms of development of technology has become a dominant world system (Antweiler, 1998).

The flow of information and communication is also rapidly supported by media that have continued to offer the lifestyle products, consumption styles, and various means of life that is considered a measure of progress and happiness that has never been seen before. As a result of rapid technological development in agriculture (biotechnology and mechanization), industrial sector (manufacturing and natural exploration), as well as services sector (transportation, medical, laboratory, communication and information), the community becomes accustomed to enjoy goods and services that are massive with the same technical efficiency, quality and type in all hemispheres. In addition, the availability of access to the marketing networks such as hypermarkets, supermarkets, minimarkets even traditional market, supported by facilities / means to pay easy and quick as telemarket, cybermarket or internet shopping has changed the culture and new habits of a number of societies. In turn, modern technology has changed into standard of production for the world market that ignores the ability to master technology / knowledge of the diversity of local resources and regards the local technology regard as inferior.

The acceleration of integration has resulted in various paradoxical conditions, such as rising unemployment, poverty, marginalization of humanitarian values, environmental crises,

damage and conflicts of natural and environmental resources. Given this reality, it is necessary to find out how local knowledge and technology can be used as meeting the needs and welfare of the community much so that damage to the social and natural environment can be avoided.

5.3. Massive capital strength

The exploitation of natural resources and the environment has now reached a critical point, which has created various environmental and community issues. In addition to the environmental problems that occur in areas where natural resource exploitation do, in fact there is a humanitarian issue, namely the exclusion of indigenous people who live in and around the area of exploitation either exploitation of forest resources, marine resources, as well as mining (Li, T. M., 2001; Wiersum, 1997; Peluso, & Vandergeest, 2001). Those who have for generations lived and rely on forests and the sea, now as large capital and legal capital exploited natural resources, are exploited, and their sovereignty and access to resources are deprived (Lampe, 2006; Santosa, 2008).

This phenomenon can not be separated from the government policy in natural resources management so far that is more focused on efforts to obtain state revenues through the exploitation of natural resources with economic value. The amount of profit that can be achieved followed by the increase of foreign exchange and absorption of labor in a given sector, the strengthening of the legitimacy of the operation of large capital in the sector.

This fact shows that the wealth of natural resources and biodiversity is seen as a resource that can be extracted to get a surplus. However, on the other hand, the success of the foreign exchange earnings must be paid with the destruction of ecosystems and will result in a disruption of the global ecosystem. Furthermore, in the aspect of socio-cultural being, there is a conflict of interest between the local cultural order and modern culture inherent in the industrialization of exploited natural resources. The issue on the one hand, namely modernization, reveals that local cultural order is a barrier that must be eliminated or replaced so that the development process does not get seriously disturbed by the local community. On other hand, local communities view that the industrialization of exploited natural resources as a threat to their customary rights to their environment. These incidents, especially on forest resources, are exacerbated by the large number of illegal entrepreneurs who are only concerned with profit without considering the environmental damage caused.

6. CONCLUSION

This study concludes that the strength of local knowledge is important to be preserved in a society in order to maintain a balance with the environment and also to preserve the environment. The development of local knowledge can not be separated from the influence of various factors which will affect human behavior toward the environment. Local wisdom of strength to be degraded because of the acceleration of integration from local to global sphere, supported by various forms of development of technology.

The exploitation of natural resources, which is done by capitalist power will make the removal of indigenous people who live in and around the area of exploitation either exploitation of forest resources, marine resources, as well as mining. Those who have for generations lived and rely on forests and the sea, now as large capital and legal capital exploited natural resources are exploited, are ignored to their sovereignty and access the natural resources.

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