

Digital Press Social Sciences and Humanities

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Proceeding of 10th International Conference on Nusantara Philosophy (ICNP)

Risalatul Hukmi, Rangga Kala Mahaswa, M. Rodinal Khair Khasri, Putu  
Pradnya Lingga D. (eds)

# Environmental Crisis and Local Wisdom; Learning from the Cosmology of the Minang and Javanese Communities

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## Abstract

Humans and nature are two inseparable components. These two components are connected in a complex way. The environmental crisis is a real threat at this point. Various natural phenomena such as hot summers and rains that come irregularly are examples of an imbalance in nature. This article argues that the knowledge possessed by a community group can help preserve the environment in that area. This is due to social networks that produce a number of shared knowledge between humans and nature that can shape their way of life. The methodology used in this study is a qualitative method by conducting literature reviews, environmental observations, and in-depth interviews with traditional leaders and indigenous peoples to identify and analyze local wisdom in two major ethnic groups in Indonesia, namely: Minangkabau and Javanese. The Minang people have local wisdom through *rimbo larangan* (forbidden forests) and customary land in preserving their environment. Meanwhile, Java has a tradition of the *tayub* dance which is performed during the harvest season. The main finding in this study is that local wisdom derived from the culture of the local community can help preserve the environment but needs to be strengthened through positive law in the country.

## Keywords

*environmental crisis, local wisdom, culture, knowledge, Minang, Javanese*

## 1 Introduction

The environmental crisis is not only a discourse but is already in front of us. Cities located on the coast began to be affected by erosion, summer and rainy season began to come irregularly. Farmers and fishermen find it difficult to adapt with significant weather changes. This resulted in changes in harvest patterns and food supply chains. Food shortages then lead to hunger and malnutrition. Everything is a chain of unity which in turn will place humans as victims.

In the midst of this critical ecological crisis, we can find processes of environmental destruction and commodification of natural resources in various places in Indonesia. Deforestation to extract its resources, such as: wood, rubber, oil palm and coffee occurs on the island of Sumatra. Meanwhile, paddy fields on the island of Java are decreasing day by day because they are being converted into industrial land. Deforestation for the benefit of a few parties has had an impact on the socio-cultural life of local communities. Land conversion that occurs very quickly often ignores the rights of the local community.

Talking about forests is not only about conserving biodiversity but also related to the preservation of local people's rights in line with the preservation of their cultural wealth. Forests are not just material categories, but also human modes of being; that is about how humans live and interpret life. Changes in land use that ignore the rights of local residents cause various kinds of socio-cultural alienation and threaten their existence. The ecological problem of diminishing biodiversity will eventually give birth to an economic problem. Local residents who use forest products can no longer used to support their micro-economy cycle.

Meanwhile, in Indonesia there are various wisdoms that can be used for environmental preservation on a local scale. In West Sumatra, where the majority of the Minangkabau tribe originates, there is local wisdom through the *rimbo larangan* (forbidden forest). *Rimbo larangan* is a rule made by the Minang people to preserve their forest. The form of the prohibition is in the form of: a ban on cutting down trees, a

ban on burning forests, a ban on converting land functions and other rules related to the use of forest products.

For Javanese people, there is a *tayub* dance as a tribute to Dewi Sri or the goddess of fertility. This dance is made in order to appreciate rice fields which are seen as something sacred as a place for rice seeds, crops and other garden plants to grow. The *Tayub* dance or Dewi Sri dance is a form of people's joy over the rice harvest and to give thanks to God. *Tayub* means the unification of society and nature which is reflected in the relationship between humans, the environment and God.

This article wants to see two forms of local wisdom originating from two major tribes in Indonesia, namely; Minang and Java in preserving their environment. The knowledge possessed by these two community groups can help resolve the environmental crisis that has been occurring, especially on a local scale. This is because social networks that produce a number of shared knowledge between humans and nature can help the process of environmental sustainability, both for the community itself and for the natural environment.

The argument used in this article is through cultural metaphysics and eastern philosophy. Cultural metaphysics refers to: people, language, actions, works of art, products, history, practices, institutions, and norms. The artifactual and hybrid human nature is discussed in the debate on cultural metaphysics. The schemes offered in cultural metaphysics lay the foundation for an analysis of the human mind, cognition, interpretation, nomologicality, normativity, intentionality and realism (Margolis, 2016). Meanwhile, using an Eastern philosophical lens; the cosmos or universe shows how social institutions and the development of individual life can be manifested and in harmony with nature. This view is different from Western philosophy which tends to see differences between individuals and society and humans and nature.

## 2 Methods

The method used is qualitative by conducting literature reviews, environmental observations, and in-depth interviews with customary stakeholders, indigenous peoples, and the public to analyze the local wisdom of the forbidden forest from the Minang tribe and *Tayub* dance in the Javanese. Literature studies are used to obtain information and references used to support research through journals, books, regulations and legislation.

The research location is in Nagari Kamang Hilia, Agam Regency, West Sumatra, which has a forbidden forest whose management is based on indigenous peoples. For research on the *tayub* dance, it was carried out in the Delanggu area, Klaten, Central Java, where the community performed the ritual of the *tayub* dance performance at the start of the rice harvest. The analysis carried out in this study was a qualitative descriptive analysis through the processed results of direct interviews and field observations. In addition, a literature review was used to support qualitative data and enrich the analysis to be carried out.

## 3 Results and Discussion

### 3.1 Local Culture and Wisdom

Identity can be interpreted as characteristics, signs, or identity. Different disciplines have different definitions of identity. In anthropological terminology, identity is a characteristic that accordance with one's own self-awareness, class, group and community. While culture shows the sense of an association or community to live the order of life. Meanwhile, in cultural sociology there are socially emerging emotional traits that go beyond psychological or physiological explanations (Gordon, 2017).

Social identity is part of a person's or individual's self-concept that comes from membership in a social group and has an emotional value attached to that membership (Mieroop, 2015). Another definition states that social identity is how individuals conceptualize and defines its unique characteristics (Baron & Bryne, 2003). This identity is shared with others such as gender and race. Social identity is conceptualized in four dimensions namely; inter-group context, in-group attractiveness, interrelated beliefs, and depersonalization.

People can show their social identity with the culture. The culture can end up for the better or for the worse. Changes from the culture adopted in society can develop over time. It is hoped that the development

of changes that have occurred will not fade the culture that has been passed down from generation to generation by the community.

In recent years the idea that a cultural dimension should be included in development policies and actions has become generally accepted. Because it prioritizes sustainable development compared to using other, more econometric models of development, culture has been studied as a necessary element for the full development of people and communities.

Humans, fauna, flora and the environment are entity as the human body with its interrelated and interconnected limbs. Earth is one ecosystem, various systems that unite and integrate. Therefore nature, flora and fauna must be an integral part in dealing with environmental crises. We do not have to consider nature, flora and fauna as enemies, but to include these parts as members in the process of creating the culture of the whole planet earth (Widodo, 2012). This is in line with Eastern Philosophy, especially Taoist and Buddhist that see all phenomena are understood not as discrete entities but as interpenetrating—as “the coincidence of interdependent conditions” (Ricard & Thuan, 2009).

Customs or habits can be interpreted as a person's behavior that is continuously carried out in a certain way and followed by outsiders for a long time. The elements of creating custom are: *first*, the existence of a person's behavior; *secondly*, it is carried out continuously; *third*, there is a time dimension and *fourth*, followed by community groups.

The definition of customs concerns the attitudes and behavior of a person followed by other people in a long time, this shows how broad the understanding of these customs is. Each community or nation and state has its own customs, which are definitely not the same as one another (Ragawino, 2008). Local wisdom is formed as a process of interaction between humans and their environment in order to fulfill their various needs and refers to certain localities and communities (Ariyanto & Tonok, 2014). Local wisdom is all forms of knowledge, belief, understanding or insight as well as customs or ethics that guide human behavior in life and in an ecological community (Keraf, 2006). The understanding of local wisdom above emphasizes that local wisdom is an important capital in natural resource management and environmental preservation.

As a form of human behavior, local wisdom is not something static but changes over time, depending on the socio-cultural order in society. Local wisdom from various regions will differ depending on the culture that was formed from their ancestors. In addition to this, the differences in natural landscapes in the territories of indigenous peoples will form their own local wisdom to protect the natural resources they have. Meanwhile, in Indonesia indigenous peoples are recognized and given protection in law. As long as the customary law community is still alive and in accordance with the principles of the Republic of Indonesia and regulated by law.

### 3.2 Rimbo Larangan

*Rimbo larangan* is a form of forest conservation carried out by the Minang people. The purpose of making customary rules regarding *rimbo larangan* is to fulfill the quality and quantity of water needed by the local community for agricultural purposes (Alandra et al., 2018). In the Nagari Kamang Hilia, Agam Regency, West Sumatera, the majority of the people live from farming and own fields located in the *rimbo larangan*.

Based on interviews with the Nagari Customary Forest Management the body under Kerapatan Adat Nagari (Customary Body), and community leaders, there are several things that make the Minangkabau community can preserve their environment, among them are: (1) Ownership of land that is still managed by clans/tribes and not individuals makes it very difficult to transfer the land in Minangkabau to people outside Minang community. (2) The status of *ulayat* land derived from the mother's lineage through the concept of *harto pusako tinggi* is useful for providing welfare to the tribe. So there is an indirect obligation to protect customary land for mutual survival. (3) Philosophy, the life wisdom of the Minangkabau people based on the Islamic religion teaches that land is the right of Allah which is provided to its creatures which need to be maintained and used properly and fairly for the prosperity of the community in living together (*hak pakai, ganggam bauntuak*). So that excessive exploitation of land is not permitted. This has been done for generations and has been internalized in the daily practice of the Minang people. So that it can be said that *Rimbo larangan* is a mechanism carried out by the people in each Nagari in the Minang area to be able to protect their territory from natural damage.

The Minangkabau area itself according to Tambo *adat* is the area around Mount Merapi and Singgalang at this time. Administratively it consists of three *luhaks*: Agam, Tanah Datar and 50 kota. Outside these areas are called *rantau* area, such as: Riau, Bengkulu, Siak and Kampar.

Cultural mechanisms can be a strategy to prevent environmental damage. Culture and cultural mechanisms are produced, reproduced and maintained from generation to generation. Meanwhile, *adat* operates as a collective mental scheme which becomes a blueprint for forming a collective action scheme.

The determinative structure consisting of rules, norms, procedures, collective awareness, and collective representation. This structure is intended to maintain the integrity and coherence of classical values in relation to the dramatic effects as political and ideological waves (Alexander & Smith, 2005). This is evident from the Minangkabau cultural mechanism with a collectivity and preservation spirit originating from Islamic teachings adhered to by the Minangkabau people.

Customary enforcement by the Minangkabau people is also supported by local political institutions that play a role in regulating, enforcing, and maintaining the functioning of social control mechanisms, especially in matters of land ownership, which are local political institutions that are reliable in making various important political decisions related to agrarian affairs. Ideologies and doctrines of religious teachings and tribal customs can be an alternative mechanism that can be strengthened to prevent the penetration of capitalism's ideology and politics.

### 3.3 Tayub Dance

*Tayub* is a type of dance that once developed in the land of Mataram around 1773, but this dance performance is limited to a reconstruction in the Keparitihan Yogyakarta (Poerbotjaroko, 1954). In 1978 the Yogyakarta *tayuban* was staged again in a series of folk-art performances. *Tayub* has a meaning as a social dance in Java to strengthen inter-group solidarity (Suharto, 1987). This dance can also be found in other places with different names; *Gandrung* (Banyuwangi) and *Ketuk Tilu* (West Java).

The *Tayub* dance also sparked debate among the community itself because of the image given to dancers which is associated with entertainers (in negative way). The process in this dance is; dancers dance alone on stage, then female dancers in pairs with male dancers perform joint dances on stage. This pairing attitude is closely related to fertility. Fertility in rice fields brings blessings to the local community. On the other hand, these dancers also have a sacred duty as people who carry out village clean ritual traditions through *nadaran* and harvest. (Suharto, 1980).



Fig. 1. The dancers of Tayub performs in rice field. (Credit photo: Ade Dani)

The *Tayub* dance itself for the Javanese people is seen as a prayer so that the work of farming in the fields and rice fields will receive blessings from the creator. The hope is that through the *tayub* dance, the farmers will get better yields. This hope comes from society's understanding that the balance of nature must be in harmony with human behavior. The Javanese people see that in treating agricultural natural resources, they need to read the signs of natural phenomena.

In this dance, the dancers represent the growing power of rice. The growing belief in society is that plant fertility is always influenced by human behavior itself. The involvement of natural elements such as; land, water, air and wind unite in the life of all living creatures. Humans are part of the recipients and perpetrators of the results of natural resources.



**Fig. 2** The society of Delanggu area, Klaten, Central Java held Tayub performance (Credit Photo: Ade Dani)

The *Tayub* dance is also seen as an expression of joy seen in the *wadag movement* as an interpretation of the figure of Dewi Sri. Rice and Dewi Sri are two symbols that are closely related to farming culture. The grains of rice for rural communities themselves have a very sacred function which is a legacy of ancestral traditions. In every traditional ceremony, people still spread white rice and rice mixed with turmeric spices when repelling bad luck (*tolak bala*). Mythology about rice has been known in various community groups in Indonesia.

This respect for rice and rice fields which is symbolized through the *Tayub* Dance indirectly makes the Javanese people really appreciate nature, especially rice fields. However, along with the increasing economic needs, a lot of nature has been converted on the island of Java and factories have been built to create short-term profits.

## 4 Conclusions

The cultural experiences of the Minangkabau and Javanese peoples provide an alternative perspective on environmental conservation. The cultural mechanism of the Minangkabau people through the *rimbo larangan* has proven to be able to protect forest areas in the area around their Nagari. This *rimbo larangan* is in line with Islamic teachings; must not cause damage to the earth, has made Minangkabau and West Sumatra more broadly maintain environmental sustainability. The cultural mechanism through the *rimbo larangan* can be used as an alternative that can be carried out in other areas to prevent environmental damage.

Meanwhile, the *tayub* dance shows that Javanese people value rice fields which give life through the art of body movement. This shows that there is a close relationship between humans physically and nature. In the Delanggu area, Klaten, Central Java, this *tayub* dance ritual is performed at the beginning of the rice harvest and is expected to increase the power of plant growth.

## References

Alandra, Y., Amelia, FUD, & Iskandar, J. (2018). The traditional Rimbo Larangan system of forest management: An ethnoecological case study in Nagari Paru, Sijunjung District, West Sumatra, Indonesia. *Asian Journal of Ethnobiology*, 1(2), 61-68.

Alexander, JC, & Smith, P. (2005). *The Cambridge Companion to Durkheim*. UK: Cambridge University Press.

- Ariyanto A., Rachman, I., & Tonok, B. (2014). Local Community Wisdom in Forest Management in Rano Village, Balaesang Tanjung District, Donggala Regency. *Warta Rimba*, 2(2).
- Baron, R.A., & Bryne, D. (2003). *Social Psychology*, (Ratna Djuwita, Trans.). Jakarta: Erlangga.
- Gordon, S. L. (2017). The sociology of sentiments and emotions. In: *Social psychology*. UK: Routledge.
- Keraf, S. (2006). *Environmental Ethics*. Jakarta: Kompas.
- Marana, M. (2010). *Culture and Development: Evolution and Prospects*. UNESCO Extea.
- Margolis, J. (2016). *Toward a metaphysics of culture*. Routledge.
- Ragawino, B. (2008). *Introduction and Principles of Indonesian Customary Law*. Faculty of Social Science and Political Science. Padjadjaran University.
- Ricard, M., & Thuan, T. X. (2009). *The quantum and the lotus: A journey to the frontiers where science and Buddhism meet*. Crown.
- Suharto, B. (1980). *Tayub: Observations from the perspective of social dance and its relation to the elements of fertility ceremonies*. Indonesian Art Institute Development Project, Directorate General of Higher Education, Ministry of Education and Culture.
- Suharto, B. (1987). *Pengamatan Tari Gambyong Melalui Pendekatan Berlapis Ganda*. Project Report. Lembaga Penelitian Institut Seni Indonesia Yogyakarta, Yogyakarta: LPISI. [in Bahasa Indonesia].
- Van De Mieroop, D. (2015). *Social identity theory and the discursive analysis of collective identities in narratives*. The handbook of narrative analysis, 408-428.
- Widodo, J. (2012). Urban Environment and Human Behavior: Learning from History and Local Wisdom. *Procedia. Social and Behavioral Sciences*, 42(2012), 6-11.