opción

The Values Of Gadang House In Minangkabau Society Through Symbolic Analysis

Misnal Munir[1], Rizal Mustansyir[2], Supartiningsih[3], Abdul Rokhmat Sairah[4]

[1]Faculty of Philosophy, Universitas Gadjah Mada, Yogyakarta, Indonesia
misnalmunir@ugm.ac.id

[2]Faculty of Philosophy, Universitas Gadjah Mada, Yogyakarta, Indonesia
mustansyir@ugm.ac.id

[3]Faculty of Philosophy, Universitas Gadjah Mada, Yogyakarta, Indonesia
supartiningsi@ugm.ac.id

[4]Faculty of Philosophy, Universitas Gadjah Mada, Yogyakarta, Indonesia
rokhmat-sairah@ugm.ac.id

Abstract

The aim of the study is to investigate the values of Gadang house in Minangkabau society through symbolic analysis via comparative qualitative research methods. As a result, human rights or demands and needs for survival in fact are related to personal factors, groups of people, the community (customs, religion, politics, etc.). In conclusion, there are effects of Minangkabau community cultural environment on the perception formation of community member about the environment. This perception shapes on the community member behaviour in managing the natural environment.

Keywords: environment, human, community, natural, Minangkabau.

Los valores de la casa Gadang en la sociedad Minangkabau a través del análisis simbólico

Resumen

El objetivo del estudio es investigar los valores de la casa Gadang en la sociedad Minangkabau a través del análisis simbólico a través de métodos de investigación cualitativa comparativa. Como resultado, los derechos humanos o las demandas y necesidades de supervivencia están, de hecho, relacionados con factores personales, grupos de personas, la comunidad (costumbres, religión, política, etc.). En conclusión, hay efectos del entorno cultural de la comunidad de Minangkabau en la formación de la percepción de los miembros de la comunidad sobre el medio ambiente. Esta percepción da forma al comportamiento de los miembros de la comunidad en la gestión del entorno natural.

Palabras clave: medio ambiente, humano, comunidad, natural, minangkabau.

1. INTRODUCTION

Basically, human life cannot be separated from its environment, as animals having a high dependency on their habitats. The human difference to other creatures is on human ability to adapt to its environment, while others such as animals, plants, are slower in adapting to their environments. This is caused by various factors, but one of which is the most dominant factor in human is the thinking intelligence owned by a human as the animal rationale. Also, human environmental is not only related to the natural environment but also includes the social environment, cultural environment. These three environments give mutual support in forming human personality. The

cultural environment is a situation and condition forming the human spirit and thought by the interconnected managing process of idea, feeling, and intention in the customs system adopted. The cultural environment relates to the custom system supporting the application of cultural symbols in community life. The creation of cultural icons and symbols in a community is determined by various factors, among others are the closeness to nature, the effort to protect the nature from abusive treatment, human compliance to the natural laws, mimesis process on natural phenomenon, protecting the natural rhyme to be adjusted to human steps. But, along with the era development, there is a shift of meaning on the cultural symbols. The contemporary human no longer adjusts himself to the natural rhythm, but even develops an idea to exploit nature by practice, efficient, effective and profit-oriented approaches.

Here, it starts to be a dramatic change in nature, because human no longer treats nature as a close friend, but as resources which must be utilized as optimal as possible. The violations of cultural laws referring to the natural harmony have been the common phenomenon, even, they are considered to be natural. In this case, a human has no longer tied to the main rules applied in social environments as well as the cultural environment. The social and cultural community is considered as an apparent life environment having no effects on human personality development. Thus, this article is necessary to study in order to place the role of the human in its life environmental – including social and cultural environment – to the extent that human can effect on and be affected by its environment.

2.   RESULT AND DISCUSSION

2.1. Definition of Environment

The environment is all things around human affecting on human and other living creature welfare sustainability both directly and indirectly. Human environment is often called a living environment. Quoting from Konrad Buchwald, the term of environment contains two characteristics: 1) always related to life elements or unities; 2) complexity of related elements to others reciprocal or unidirectional, so there is a network of relationships among the elements, both inanimate and animate, in the human environment. Life environment is known as oikos, namely the entire universe and entire interplaying interaction related to between living things and other living things and to the entire ecosystem or habitat (Keraf, 2014). Life environment not only relates to the physical environment but also to the life related and developed in it.

Sonny Keraf in his book with the title of Filsafat Lingkungan Hidup or Life Environment Philosophy mentions two points of view on seeing the living environment. First, the mechanistic-reductionist paradigm influenced by Descartes and Newton. Nature is conceived in mathematical formulas that can be quantified and measured; not as nature which is approached by overall sensory life and full of surprises. Nature in the perspective of mechanistic- reductionist losses of aesthetic values, ethical, spiritual, quality, soul, and spirit. Nature is the object of dead, dry and static. Nature is not tremendun et fascinosum (Keraf, 2014). Second, the systemic paradigm-organic, which means a holistic and ecological view on the universe due to understanding that man is the only entity in the great continuum or the whole universe

(Keraf, 2014). This attitude and behaviour create a relationship pattern of mutual support; friendly and care about nature and the environment. This attitude arises from the combination of skills and rational knowledge on the one hand, and the intuitive experience on the universe and the environment on the other. This paradigm views nature as something that evokes a sense of eerie awe and charm at the same time (tremendum et fascinosum).

2.2. Type of Environment

The human environment basically can differ into three, namely:

a) Inanimate environment or physical environment (x);

b) Body and living thing environment or biological environment (x);

c) Environment between human or cultural social environment (Thohir, 1985).

The first and second environments form naturally often called a natural environment or the man-made environment (Stroll, 2000). Environmental or ecosystem governance is regulated and controlled naturally. The life in a certain environment and for a certain era is an interaction between the a-biotic community and biotic community tending to the harmony or balance. This balance is called an ecological balance (Thohir, 1985; Shabbir et al., 2018). The ecological balance is dynamic and stable. The life process in the harmony and stable environment must be seen from the functional relationship between the integrated components in an ecosystem formed. This approach is commonly called an ecosystem approach or holistic approach (Thohir, 1985). In seeing human and environment as an ecosystem, there are

two diriment approaches in placing human, namely the bio-ecological approach and geo-social system approach. First, the bio-ecosystem approach places human position and functions in a much different ecosystem to other living things. This view seems for example in the thought of Haeckel and Ellenberg. Ecology is seen as a knowledge studying living things and their environment (Thohir, 1985). The main characteristics of bio-ecosystem are as the following:

a) The unity of life or living things to conduct their niche in each household management environment.

b) The environment components consisting of various environment unities with spatial elements and their structures which each will contribute to affect the process of household management environment.

c) The unity of life and environment to each ability and strength in the principles will more to the direction to achieve the ecology balance.

Second, the system geo-social approach putting the human position and function in the living network which is not equated with the niche of other living creatures. Humans have the ability to plan and manage the utilization of natural resources and the environment for the sake of mankind. The natural resources and human environment planning and management are influenced by many factors, among others are his own personal (individual), groups and communities, and economic, political, habits, customs, beliefs and religion factors (Ahmad & Ahmad, 2018). Thus geo-social environmental concerns not only to the biophysical components but also on the social and cultural human relations. The fundamental characteristic of the system geo-social approach is as the following.

a) Human rights or demands and needs for survival in fact are related to personal factors, groups of people, the community (customs, religion, politics, etc.)

b) The type and size of load transferred by humans for natural resources and the environment in order to make the ends meet.

c) The ability or the potential of natural resources and environment given by man on his shoulder

d) Tangible results created by the natural resources and environment to cover human needs (Suseno, 1991).

Sonny Keraf confirms that life is an integral part of nature, not outside or above nature. Life is seen as one thing having an autopoiesis dissipative structures, namely a system which is capable of producing, regenerating and regulating itself by a dynamic process of absorbing energy and materials from the environment; but at the same time creating the remains of production process serving as energy and material for other living systems continuously without stopping. Through the autopoiesis dissipative, every organism and living systems regenerate, establish and maintain itself; but at the same effects on and supports the other life in the universe ecosystem. There is coexistence between the balance and continuous flow, the coexistence between stability and change. The life evolution process is thus always in co-evolution (Keraf, 2014; Nasiri et al., 2014). Another thing also affirmed is that there is a connection between cognitions or process of knowing the process of life. The cognition is the activity in process of establishing ourselves as well as the process of self-preservation for the entire web of life. The interaction between all living organisms with its environment is cognitive interaction, consciousness interaction. Consequently, life and consciousness are

two inseparable things. (Keraf, 2014).

2.3. Environment Ethics

Natural resources management wisely is the main factor for maintaining ecological balance. Humans' moral wisdom in their interaction with the environment to maintain and manage the balance is called the environmental ethic. This environment ethic maintains the relationship between humans and others, between human and its environment, and between humans and God as their Creator. There apply harmonious and balance patterns. The environment ethic is human moral wisdom in the interaction with the environment. The environment ethics is necessary so that each activity relating to the environment is considered carefully so that the ecological balance is still maintained. The environment ethic is not only about the human attitude towards nature, but also about the relationship between all universe life, namely between humans and humans having impacts on nature and between humans and other living things or with nature in a whole. Citing Richard Sylvan and David Bennett opinions, Sonny Keraf in his book with the title of Environmental Ethics mentions three models of the environmental ethics theory, namely Shallow Environmental Ethics, Environmental Ethics Intermediate and Deep Environmental Ethics. The three theories are also known as anthropocentrism, bio-centrism, and Eco-centrism (Keraf, 2010).

Anthropocentrism is the environment ethic theory seeing man as the centre of the universe system. Everything in the universe will only get the value and attention as far as it supports and is for the sake of humans. Nature does not have value in itself and is viewed as an object

and means for the human need fulfilment (Keraf, 2010). Human is the only centre of consideration, and is considered relevant in moral considerations. As a result, theologically, the environment is striving to produce benefits for humans and avoid harmful effects on humans. In other words, the highest value is the human interest, so that only people having the value and attention. This view is not only anthropocentric, also instrumentalist and selfish. It is instrumentalist because the nature is considered as a tool for the human interest. Selfish because it is only for human interests (Keraf, 2010). The bio-centrism environment ethic theory is not only seen a human right that has a value. Nature also has value in itself. This is the main characteristic of this theory that every life and living beings have value and worth to himself that deserve consideration and moral concerns (Keraf, 2010). The essence of this theory is humans have a moral obligation to the nature (Ismael, 2007).

According to this theory, the environmental ethics is not one branch of human ethics. The environmental ethics precisely enlarges the human ethics applying to all living creatures (Keraf, 2010). The Bio-centrism theory believes humans are not only as the social beings. Humans must first be understood as being biological and ecological beings. The world is not as a collection of separated objects, but as a network of phenomena which are interconnected and mutually dependent on each other fundamentally. The Bio-centrism theory in concept, reveals that the ethics concept is limited to the living community (bio-centrism), such as plants and animals. The Eco-centrism theory is a continuation of the bio-centrism, so it is often equated both because there are many similarities between both. The Eco-centrism theory and bio-centrism break the anthropocentrism

worldview limiting the ethics applicability only in the human community. Both extend the ethics applicability. Bio-centrism enlarges the scope of the biotic community, while Eco-centrism enlarges the scope of the whole ecological communities (Keraf, 2010). So we can conclude that the Eco-centrism theory relates wider environment ethics from biocentrism; the Eco-centrism ethics focus on the entire ecological community, both living and not living. One version of popular Eco centrism theory today is Deep Ecology. Deep Ecology calls for a new ethic which is not centred on humans, but is centred on entire living things related to the efforts to solve the environmental problems. Deep Ecology does not completely change the relationship between man and man. The new thing of Deep Ecology is: first, the man and his interests are no longer the measure of everything else. Humans are no longer the centre of the moral world. Deep Ecology is precisely focused on all species including non-human species, or in short, the whole biosphere. Similarly, Deep Ecology does not only focus on the short term, but long term. The moral principle developed by Deep Ecology is concerned on the interests of the entire ecological community (Keraf, 2010).

Second, that the environment ethics developed by the Deep Ecology is designed as a practice ethic, namely as a movement. The moral principles of environmental ethics must be interpreted in actual and concrete actions. The Deep Ecology relates to a deeper and comprehensive movement than an instrumental and expressionist as found in anthropocentrism and biocentrism. The Deep Ecology has required a new understanding on the ethical relation in this universe as well as new principles in line with the new ethical relation, then it is interpreted in actual movement or action in the field. Then, the Deep

Ecology is an interesting alternative. An alternative for movement for saving the environment simultaneously by changing the way of thinking, lifestyle and individual, community attitude, as well as political and economic policies (Keraf, 2010).

2.4. Principles of Environment Ethics

In further, Sonny Keraf expressed that there are nine environment ethics, namely:

a) Respect for Nature: The respect for nature is a basic principle for human as part of the entire universe. Also, each social community member has the obligation to respect the common life (social cohesion), also each ecological community member must respect and appreciate each life and species in the ecological community. The ecological community member has the moral obligation to maintain the cohesion and integrity of the ecological community, nature as the place for a human to live. Also, each member of the family has the obligation to maintain its family existence, prosperity and cleanness, each ecological community member also has the obligation to appreciate and respect this nature as a household (Keraf, 2010).

b) Moral Responsibility for Nature: The respect for nature is the moral responsibility to nature, because human ontologically is an integral part of this nature. Each part in this universe is created by God by its own purpose, regardless whether the purpose is for human interest or not. The natural perseverance and damage is all human responsibility. So, human as part of the nature is responsible to maintain it (Keraf, 2010).

c) Cosmic Solidarity: The solidarity principle is from the reality that humanity is an integral part of the universe. Moreover, in eco-feminism perspective, a human has an equal and similar position with nature and all other creatures in this world. This reality evokes in human itself the solidarity feeling in nature and other similar living things (Keraf, 2010).

d) Love and Caring for Nature: As similar ecological community member, human is motivated to love, care and preserve the universe and all contents, without any discrimination and domination. The love and care are also from the reality than for the similar ecological community member, all living things have the right to be protected, maintained, not being hurt, and treated (Keraf, 2010).

e) No Harm Principle: Human has a moral obligation and responsibility to nature to give no harm and threat to other living things existences in nature. Humans may utilize nature to meet their demand but it has to be done wisely. The moral obligation and responsibility can be done maximally by maintaining, protecting, guarding and preserving the nature; or minimally by not doing any harmful actions to the universe and all contents (Keraf, 2010).

f) Simple Life and balance to Nature Principle: Humans understand themselves as an integral part of nature and utilize nature sufficiently. The simple life principle is fundamental. The consumption and production pattern of modern human must be limited. So far, nature is seen only as an exploitation object and satisfying human life. The emphasized here is the material value, quality and standard, not the nature of greedy, the most important things are a good quality of life (Keraf, 2010).

g) Fairness principle: This principle talks on the similar access

for all groups and community members in participating in natural resources management and natural perseverance policies, and participating in enjoying the natural resources utilization sustainably. The fairness principle more talks about how human must behave to others related to the nature and how the social system must be regulated to give positive impacts on environment preservation (Keraf, 2010).

h) Democracy Principle: This principle mainly relates to the policy taking and determines the bad and good, the damage and not, of a natural resources. The democracy principle includes some other moral principles, namely:

1. Democracy assures diversity and plurality, for life or aspiration, political group and value.

2. Democracy assures the freedom in giving an opinion and fighting for the value adopted by each person and community group in the framework of common interest.

3. Democracy assures each person and community group to participate in setting the public policy.

4. Democracy assures each person and community right to obtain accurate information for each public policy and all things related to the public interest.

5. Democracy demands public accountability so that the power represented by the people to the rulers is not used arbitrarily (Keraf, 2010).

i) **Moral Integrity Principle**: This principle is mainly for the public officers so that they have respected moral attitude and behaviour as well as hold to secure the public interest related to the natural resources. The integrity of public officer moral is one of the

main perquisites to assure the environment interest (Keraf, 2010).

Related to life environment, indeed the knowledge cannot be denied to have a contribution to natural perseverance. The modern science, by its basic view seeing the human as separated part from the natural environment, has been succeeded in promoting human understanding and simplify the system to be simpler. Though, modern science is not fully successful in explaining a complex ecological system. This complex ecological system varies, both specially and temporary, and causes the generalization effort as conducted by the positivistic approach having small meaning mainly to give a recommendation in perspective effort for sustainable resource use. The scientific community has tended to simplify the very complex ecological system, as a result of a series of problems in natural resources utilization as well as environmental damages.

2.5. Environment in Local Community Insight

The local community knowledge accumulated along life history has a very big role. The view that human is a part of nature and belief system emphasizing on the respect to the natural environment giving very positive value in sustainable development (Mitchell, 2003). The growing awareness that the natives living in an area have had the understanding and views on resources, environment and local ecosystems, raises the thought that experts should not solely rely on the authorized scientific methods in understanding a region. This awareness makes the receipt of a participatory approach and the growing interest in combining local knowledge systems with modern scientific knowledge (Mitchell, 2003; Muniandy et al., 2018). This

local community knowledge seems in a number of local wisdom of indigenous peoples in interacting with the environment. The indigenous peoples have a distinctive view of nature. Three things to note in relation to the indigenous peoples and natural according to Sonny Keraf are as the following.

1. The way of indigenous peoples about themselves, nature and the relationship between humans and nature.

2. Traditional knowledge owned by the indigenous peoples as well as determining the indigenous people's lifestyle and behaviour against nature.

3. The indigenous people's rights need to be protected, especially regarding community ethics to nature (Keraf, 2010).

The local knowledge or traditional knowledge is all forms of knowledge, beliefs, understanding or insight as well as custom or ethics guiding human behavior in life in ecological communities. The whole traditional wisdom is lived, practiced, taught and passed down from one generation to another as well as forms human daily behaviour pattern against fellow human beings, nature and the transcendental ones (Keraf, 2010).

2.6. Environment in Minangkabau Local Wisdom

One local wisdom in the archipelago is the Minangkabau culture. Minangkabau community is a civilized society, there is no activity in the daily community of Minangkabau apart from the customs adopted by this community. For example, it is disclosed in the following maxims:

Nan lurah tanami bambu (part of cliff is planted by bamboo)

Nan lereang tanami tabu (part of the slope is planted by sugarcane)

Nan padek kaparumahan (the hard part is for building houses)

Nan gurun buek kaparak (hill part is for gardening)

Nan bancah buek kasawah (watery part is for the field)

Nan munggu kapakubuaran (mound part is for the cemetery)

Nan gauang katabek ikan (the part with dents is for fish pond)

Nan Padang kapaimpauan (a large part is for gathering)

Nan lambah kubangan kabau (a muddy part is a place for buffalo to wallow)

Nan rawang payo kaparanangan (swamp part is for raising ducks)

Nan bancah ditanam baniah (watery part is for seeding paddy seeds)

Nan kareh dibuek ladang (the hard part is for the field)

Sawah batumpak di Nan data (the outspread field is in the flat area)

Ladang babidang di Nan lereang (the segmented field is in slope area)

The maxims above describe the pattern of land utilization based on the environment condition.

Minangkabau community adopts the matrilineal kinship system. The adopted matrilineal kinship system give considerable effects on community life in Minangkabau. Rumah Gadang, as one of the Minangkabau cultural artefacts is greatly affected by the matrilineal kinship system. Minangkabau community is a community living communal or in groups, as well as has strong kinship. This is reflected from the open space in each house facility group (Rumah Gadang) as a

place for get socialization for its community. Rumah Gadang is one of the Minangkabau community cultural result forms as the consequence of matrilineal kinship system adopted by the Minangkabau community. One of which clearly can be seen by the spatial setting in Rumah Gadang, such as the system in using rooms as well as there is no place for boys in Rumah Gadang. The principle in building Rumah Gadang is the use of local technique and material as well as an answer for building place environment setting. The main material used in Rumah Gadang is the wood materials many found in around the location where the building will be built. It also creates the natural colours in its use.

Rumah Gadang is a traditional house as a cultural work from the tribe. Rumah Gadang is not only a big, long and high towering building, but it is also a custom home building which its outer part contains its meaning overall as reflection from the matrilineal kinship system adopted by Minangkabau community itself. As other custom houses, Rumah Gadang is also rich in meaning as a common description from Minangkabau community life in a whole. As one of the cultural products, Rumah Gadang is also full of meanings and symbols reflected in daily Minangkabau community life. Rumah Gadang in daily life has its function, the functions are:

a. **Custom Function:** Minangkabau community holds firmly the customs. It can be seen from the custom philosophy which is still applied in daily life. A Rumah Gadang is the main house owned by a group of Minangkabau community tied by a certain tribe. Like the main house, Rumah Gadang is a place to conduct the custom events and other important events for the concerned tribe. The custom activities in Minangkabau community can be explained based on the

human life cycle, namely: Turun Mandi, Khitan, Perkawinan, Batagak Gala (Pengangkatan Datuak), Death. The custom function in a Rumah Gadang can be called a temporary function going in a Rumah Gadang, because the events do not happen every day and only in certain times.

b. Health Function: Rumah Gadang is a place to accommodate daily activities for its dwellers. Rumah Gadang is a house inhabited by a big family with all activities in daily life. The meaning of big family here is a family consisting of father, mother and girls, both with their families or no, while boys have no place in Rumah Gadang. This function is actually the most dominant in a Rumah Gadang. As a common residential house or common community, there are interactions between family members. The daily activities such as eating, sleeping, gathering with family members and others are more dominant here, also the custom events as mentioned above. In line with the time passing and the increasing community activities mainly using Rumah Gadang as a residential facility, these have caused additional new functions to Rumah Gadang. Architecturally, it can be known that each activity is necessary for rooms to accommodating the activities. As well as Rumah Gadang, new rooms in Rumah Gadang (transformation rooms) are the answer for the increasing activities as well as demand diversity from the dwellers of Rumah Gadang.

c. Rumah Gadang as Cultural Artefact: As described above, Minangkabau community is a community holding the matrilineal kinship system, which based on the maternal lineage. As a matrilineal community, the tribal system is also according to the mother, so if a woman has Piliang tribe, so for generations, the children in these families also have the same tribe as their mother.

Rumah Gadang as a place to stay together for Minangkabau

community to living while holding the matrilineal kinship system (matrilineal), women get special position and place in Rumah Gadang. Every married woman will have a single room, while the youngest woman gets the most tip room which will then be moved if she already has a husband later. The boy does not have a place in the Rumah Gadang, since before, boys who started growing up will stay in the family mosque or go wander out of the village. Rumah Gadang for Minangkabau community functions as a residence, it also serves as existence symbols of a tribe. Another function of Rumah Gadang is as a place for deliberation discussion and as a place to perform traditional ceremonies, such as those spoken in a speech the Rumah Gadang establishment, namely:

Rumah Gadang sambilan ruang

Salanja kudo balari

Sapakiak budak maimbau

Nan salitak kuciang malompek

Tiangnyo basandi batu

Sandi banamo alue adaik

Tonggak banamo kasandaran

Tonggak gaharu lantai candano

Atok ijuak dindiang baukie

The meaning of the expression above is the number of pillars in a Rumah Gadang as one of the factors to determine the size (small or big) the house building to be built, the location of door determines the harmonious system adopted, between the outside and inside which cannot passed without certain rules; the house with walls analogizes the cultural value and its civilization while the rooms are the place to keep precious stuffs. Basically, the rooms in a Rumah Gadang can be

categorized into 4 main areas. This zoning is based on the room hierarchy in Rumah Gadang itself, namely:

1) Public, is the guest room or common room as a room without any limitation.

2) Semi-private, is the transformation room such as bandua in front of the bedroom and anjuang (special room) in tip of Rumah Gadang which can be found in some types of Rumah Gadang.

3) Private, is the bedrooms in Rumah Gadang which were previously based on the number of daughters by the house owner.

4) Service, is the kitchen which previously was a traditional kitchen using wood as the fuel.

The increasing activity and increasing diverse Minangkabau community demands, give chances for a transformation in Rumah Gadang. As a dynamic community and holding the life philosophy of alam takambang jadi guru- the environment is the teacher has marked that Minangkabau community is a community who always opens itself to any changes and will develop based on the life demand and increasing activity by its community. Rumah Gadang, as one of the cultural artifacts from Minangkabau community, is one of the high-value cultural products as well as the identity for Minangkabau community and the customs.

3. CONCLUSION

Based on the description above, it can be concluded that there are effects of Minangkabau community cultural environment on the perception formation of community member about the environment.

This perception shapes on the community member behaviour in managing the natural environment. If nature is seen as an object to be exploited so the nature will tend to be treated as exploitatively. Other way around, if nature is seen as an active environment, so the community members will tend to respect and maintain the natural preservation. For initial community, this teaching is expressed in the form of cultural myths and works. This research has revealed this to be transformed into the following generation for the realization of environment preservation as a place of life for human beings.

REFERENCES

AHMAD, I., & AHMAD, S. 2018. **Multiple Skills and Medium Enterprises' Performance in Punjab Pakistan: A Pilot Study**. Journal of Social Sciences Research. Vol. 7, pp. 44-49. doi:https://doi.org/10.32861/jssr.spi4.44.49. Pakistan.

ISMAEL, S. 2007. **Traditional Minangkabau Architecture: Cultural Values in Traditional House Architecture**. Bung Hatta University Press. Padang. Indonesia.

KERAF, S. 2010. **Environmental Ethics**. Kompas book Publisher. Jakarta. Indonesia.

KERAF, S. 2014. **Environmental Philosophy: Nature as a System of Life**. Kanisius. Yogyakarta. Indonesia.

MITCHELL, B., SETIAWAN, B., & RAHMI, H. 2003. **Resource and environmental management**. Gadjah Mada University Press. Yogyakarta. Indonesia.

MUNIANDY, P., JALIL, K., & JAMALUDDIN, S. 2018. **The influence of self-drive on the development of Malay language programme: non-native adults' perspective**. Humanities & social

sciences review. Vol. 6, Nº 2: 74-83. India.

NASIRI, M., MINAEI, B., & REZGHI. M. 2014. **Fuzzy dynamic tensor decomposition algorithm for recommender system.** UCT Journal of Research in Science, Engineering and Technology, Vol. 2, pp. 52-55. Iran.

SHABBIR, M., SHARIFF, M., ASAD, M., SALMAN, R., & AHMAD, I. 2018. **Time-frequency Relationship between Innovation and Energy Demand in Pakistan: Evidence from Wavelet Coherence Analysis**. International Journal of Energy Economics and Policy. Vol. 8, Nº 5: 251-258. Netherlands.

STROLL, A. 2000. **Twentieth-Century Analytic Philosophy**. Columbia University Press. New York. USA.

SUSENO, F. 1991. **Social Ethics**. Gramedia. Jakarta. Indonesia.

THOHIR, K. 1985. **Points of Environmental Management: As Inputs for Landscape Architecture and Environmental Development**. Bina Aksara. Jakarta. Indonesia.