

Local Wisdom vs. Public Policy: Nagari Batu Bajanjang's Rejection of Government Projects in Indonesia

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ARTICLE INFO

Keywords:

Development, local community, ethnography, customary land, sustainable development.

Article history:

Received : 2022-08-07

Revised : 2023-03-29

Accepted : 2023-05-31

DOI:

<https://doi.org/10.26593/jsh.v2i02.6019>

ABSTRACT

The Indonesian government believes that the development of an electric power plant in Gunung Talang will have a positive impact on improving the welfare of the community. However, this plan is not uniformly accepted by the local community, as their area will be affected by the development. The local community around Gunung Talang who will be affected by it have protested the government's plan. It is important to consider the local community's thoughts in development planning. The methodology used in this study is ethnography, utilizing emic and etic data, and employing purposive sampling, key informants, and ordinary informants. The results indicate that the local community's understanding and beliefs about their customary land are essential to their survival and well-being. They feel that the land is a source of life that needs to be protected and preserved. They also feel that the government has not considered their needs and interests in this development plan. The conclusion of this study is that involving the local community in development planning and considering their perspective is crucial to minimizing negative impacts and maximizing positive outcomes from it. Therefore, this can provide broader benefits to the community and strengthen social and ecological sustainability.

ABSTRAK

Pembangunan pembangkit listrik di Gunung Talang oleh pemerintah Indonesia diharapkan dapat meningkatkan kesejahteraan masyarakat. Namun, rencana ini tidak diterima dengan baik oleh sebagian masyarakat lokal karena wilayah mereka akan terkena dampak pembangunan. Untuk memahami pandangan masyarakat lokal tentang pembangunan ini, peneliti menggunakan metodologi etnografi dengan memanfaatkan data emik dan etik, dan menggunakan teknik purposive sampling, informan kunci dan informan biasa. Hasil penelitian menunjukkan bahwa pemikiran masyarakat lokal tentang tanah ulayat sangat penting dalam hidup dan kelangsungan hidup mereka. Mereka merasa bahwa tanah adalah sumber kehidupan yang harus dijaga dan dilestarikan. Mereka juga merasa bahwa pemerintah tidak memperhatikan kebutuhan dan kepentingan mereka dalam rencana pembangunan ini. Kesimpulan dari penelitian ini adalah bahwa perlu melibatkan masyarakat lokal dalam pembangunan dan mempertimbangkan perspektif mereka agar dapat meminimalkan dampak negatif dan memaksimalkan dampak positif dari pembangunan. Dengan demikian, pembangunan dapat memberikan manfaat yang lebih luas bagi masyarakat dan memperkuat keberlanjutan pembangunan secara sosial dan ekologis.

1. Introduction

In 2012, the World Wildlife Fund (WWF) released a report entitled "Igniting the Ring of Fire: A Vision for Developing Indonesia's Geothermal Power". The report revealed that Indonesia has the largest potential for geothermal energy in the world, with a total potential of up to 29 gigawatts. However, only around 1.2 gigawatts of this potential have been effectively utilized. Despite the National Energy Policy targeting geothermal energy to contribute around 5% to the national energy mix by 2025, the current contribution of geothermal energy is still very low, at only around 1%. This is due to slow development in the utilization of this energy source in Indonesia. (Asian Development Bank, 2018).

The government of West Sumatra plans to build a geothermal power plant (PLTP) in the area around Mount Talang, Solok Regency, which has a considerable geothermal potential. The development of this PLTP is expected to meet the current and future electricity needs and improve the welfare of the local community. However, the development plan does not receive full support from all affected local communities. Some groups of people around Mount Talang who are affected by the development held protests to reject the government's plan. They are concerned about the environmental and social impacts that may occur due to the construction of the PLTP, such as environmental damage, disruption to the lives of the surrounding communities, and the loss of agricultural land. (Walhi, 2018).

Human beings are social creatures that heavily rely on the help of others. However, humans are also a part of the natural environment in which they live. Both environments influence and shape cultural characteristics that are distinct from one another. Culture is a system of knowledge used by humans as social beings to understand and interpret their environment and experiences. Culture also acts as a mechanism of control for human behavior and actions, as it is a pattern of behavior and creation that defines humans as cultural beings (Poerwanto, 2000).

The natural, social, and cultural environments influence human adaptation in their pursuit of meeting their needs and living a better life. Therefore, culture can be viewed as an all-encompassing design of human life. In understanding human culture, Suparlan divides environmental categories into three forms: natural, social, and cultural environments. This indicates that humans need to adapt to the environment around them to live effectively and efficiently (Poerwanto, 2000).

In conclusion, human culture is influenced by the natural, social, and cultural environments. As part of the natural environment, humans have basic knowledge about nature that has been internalized since childhood in every society. This type of knowledge is known as local knowledge. The Gunung Talang community also has knowledge about the nature surrounding them.

Local knowledge teaches them what is allowed and what is forbidden. However, the community's view of new things tends to be conservative, and they are skeptical of geothermal power plant development plans that are not sourced from their community. Such policies are considered detrimental to the community and the surrounding environment and are therefore often rejected by the local community. Therefore, it is understandable if the community is considered conservative by outsiders. However, the local knowledge held by the community can help them preserve local wisdom and maintain the environment to remain sustainable.

For a long time, local communities have understood and utilized their surrounding environment in ways different from modern views. For example, the Minangkabau community is known for their understanding of the environment and how to use it wisely. They see nature as a teacher, and their local knowledge is reflected in the Minangkabau customary proverbs. This approach is also adopted by the Nagari Batu Bajanjang community in Solok Regency. They understand that the natural environment not only has economic value, as is considered important in modern development projects, but also has social and cultural value. The Nagari Batu Bajanjang community believes that the forest, land, water, agricultural land, and even settlements are jointly owned and rich with values and norms. Differences in this understanding underlie differences in opinion between communities, governments, and entrepreneurs in geothermal power plant development plans. Researchers describe the importance of this unique and different local knowledge.

The difference in views between the government and the community regarding the management of geothermal resources is an interesting topic to discuss. In this case, the local knowledge held by the community in utilizing the environment becomes important to follow. The question is, how do communities

practice this local knowledge in utilizing their surrounding environment and why do they still maintain this knowledge despite differences in views with the government?

2. RESEARCH METHOD

The approach used in this research is ethnographic study. As an ethnographic researcher, the decision was made to use realistic ethnography (where the researcher acts as an "objective" observer, recording facts with a non-biased attitude). Additionally, the ethnographic study approach is considered very suitable for my research plan because its main procedures involve a holistic approach to the case through detailed descriptions of patterns, contexts, and settings in which the case occurs. The analysis utilizes emic data (the perspectives of the informants) and etic data (the researcher's perspectives). The informant selection technique used in this study is purposive sampling. The informants selected are individuals who have knowledge about the environment, categorization of their surrounding environment, particularly around Gunung Talang. The informants are divided into two categories: key informants and ordinary informants (Creswell, 2014).

There are two methods of data collection used in this research: participant observation and interviews. The data analysis is conducted from the beginning to the end of this study. Therefore, it can be concluded that data analysis is a process of systematically searching and organizing data obtained through interviews, observations, and documentation, making it easily understandable and narrated. The collected data is then grouped based on the research objectives, thus answering the research questions (John W. Creswell, 2018).

Environmental science or ecology is a field of study that examines the interrelationships between organisms and their environment, including the physical environment and the various organisms that inhabit it (Poerwanto, 2000; Ryczkowski, 2018). Anthropologists also see that human activities related to the environment are not just individual activities but are formed and organized within a communal framework, which is then referred to as human ecology. It is interesting to see how the relationship between humans and the environment is described as environmental knowledge, emphasizing how the environment is perceived by individuals (Orlove, 1980). Therefore, local knowledge is very useful in achieving collective goals. Community efforts are influenced by their knowledge of their own environment, and these conditions result in remarkable understanding and adaptation to environmental conservation, enabling communities to have a harmonious coexistence with their own environment by utilizing wise and knowledgeable local knowledge (Nongrum, 2023).

3. RESULTS AND DISCUSSION

The development of time has also led human civilization to continuously make changes in order to adapt to the current conditions. Many new things are discovered, or existing findings are renewed with the latest innovations. Humans always strive to meet their increasingly complex needs, such as energy. Energy is needed by every individual, family, community, and even a country. Therefore, humans make plans. One of the ways to meet the current needs in Indonesia is through the development of power plants (Sastra Hadi & Vidya Putra, 2019).

Such a situation is currently being experienced by the community in Nagari Batu Bajanjang. Their natural environment holds tremendous potential, one of which is geothermal energy. According to observations and research conducted by the government and developers, this *nagari* has a manageable geothermal energy potential. It is believed that this potential will meet the energy needs in West Sumatra and even more if managed properly. In general, the environment is owned by the state when it concerns the livelihood of many people (Indonesia, 1945 Chapter 33, Article 3); however, in certain contexts, the environment is owned by those that manifest in social and cultural entities, such as communal land (Cf. Fatmi, 2018). The position of communal land in the midst of the community in this *nagari* is crucial. Many local residents own agricultural land and have even built settlements on it. Development plans of this kind are considered inappropriate by the community because they bypass existing local values and knowledge.

This is in contrast with the established top-down development plans. The perspectives of the government and developers tend to be universal, disregarding local knowledge and the voices of the local community. The views of the government and developers as the "helpers" of the community sometimes romanticize the situation. It means that the government or developers come as the main actors to go

through the difficult times by providing assistance and training. This way of thinking only views the community as a powerless party that needs to be empowered in order to prosper. As a result, development policies are unable to make the community self-reliant with their own potential. This condition shows that power becomes a form of truth that erases local values. This clearly contradicts the situation in Indonesian society and various other countries in the world, which are rich in cultural knowledge.

Regarding the National Energy Policy, the government seeks to meet the national energy needs, especially through renewable energy (Presiden Republik Indonesia, 2006). The government has made efforts to develop a strategy for national energy management by 2025, where 17% of the national energy supply must come from renewable sources. One of the efforts being made is the construction of geothermal power plants. Solok Regency has been chosen as the pilot project for a series of three geothermal power plants in West Sumatra. This is due to the significant geothermal energy potential in Indonesia, totaling 29 gigawatts. This potential makes Indonesia the country with the largest geothermal energy potential in the world (Sastra Hadi & Vidya Putra, 2019).

The government and developers are not aligned with the understanding of the local community, which has led to strong resistance. The developers offer job opportunities, community empowerment, scholarships, corporate social responsibility (CSR), and so on. In physical terms, the developers promise to build healthcare facilities, education institutions, and their own institutions for the community of Nagari Batu Bajanjang. This shows that many government-planned developments tend to prioritize physical development only. The offers provided by the government through the developers are largely rejected by the community, as they feel that their position is being forced to abandon their local values and norms. These seemingly small and insignificant matters to outsiders contain extraordinary local knowledge behind their realities. There is something beyond this reality that has not been understood by outsiders in rejecting this development plan (Anggreta, Somantri, & Purwanto, 2022).

Such views tend to deny that the local knowledge system of the community provides maximum benefits. The local knowledge of the community is viewed as traditional, non-scientific, slow, and incapable of producing significant results. Views like these make the government, NGOs, and related organizations always bring the truth. As a result, the knowledge of the community is not considered in making development plans from the past to the present. It cannot be denied that there is a significant imbalance in the implementation of development programs on the ground. Many parties, such as the government and developers, do not know or acknowledge that the community has a knowledge system capable of identifying their environment holistically. The local knowledge system related to the environment is often considered merely stories or myths.

In the perspective of development, the environment of the community in Nagari Batu Bajanjang is seen merely as an asset that can support the national development acceleration in the region. The government and developers claim that the geothermal development plan will not cause any changes or damages. The development plan is more "environmentally friendly" compared to other exploration projects. Geothermal energy is believed by researchers in the field to be a clean and environmentally friendly energy source (Ahsat & Ardiansyah, 2012).

While it may be environmentally friendly, the actions taken in the development planning process are not friendly. Development in Indonesia still adopts the colonial-era methods. Development is always seen as a frightening specter for the community because it is implemented in a manner that is not friendly to the community (even through coercion). Therefore, development seems to impose the interests and desires of external parties such as the government, developers, and even global organizational standards without considering the local community directly affected. Local knowledge of the community is developed and emerges from deep observation, experience, and comprehensive and holistic adaptation. The knowledge possessed and passed down by the community from one generation to the next (Ahsat & Ardiansyah, 2012).

Culture, among other things, is cognitive in the form of ideas and concepts. It is always influenced by time and space. When necessary, it can reconstruct people's understanding concerning the environment through cultural negotiations if they are within the limits of cultural tolerance. This is what the government has not understood even to this day. The author elaborates these findings in the following sections.

A. Our Land: The Dilemma of *Ulayat Nagari* Land Possession

Community knowledge is a logical, rational, and beneficial thinking system for society. This knowledge is not merely an obstacle to development but needs to be understood in order to drive development. Development is a small part of culture. This also applies to the community of Nagari Batu Bajanjang, where they have fundamental local knowledge that needs to be preserved until now. The following is a more detailed explanation below.

1. Ulayat Land and Water: The Importance of Land and Water Resources

In Nagari Batu Bajanjang, there are two types of ancestral treasures, namely high ancestral heritage (*tambilang basi*) and low ancestral heritage (*tambilang perak*). Nagari Ulayat land belongs to *tambilang basi* or high ancestral heritage, where this land is communal property at both the *suku* (clan) and *nagari* (village) levels. This land exists for the benefit of the local community, such as for settlements and agriculture. There is a rule from *ninik mamak penghulu pucuk* (traditional leaders) from the past until now, prohibiting the sale of this land. The existence of this land serves as a binding factor (identity) for the local community. Those who have access to this land are considered to be the original inhabitants of Nagari Batu Bajanjang.

Ulayat land has a vital role for the community in Nagari Batu Bajanjang until now. There are 1,136 farming households that own agricultural land in this *ulayat* land. The community sees this *ulayat* land not only as a place for farming but also as a space for living. It is not the land itself that is important but the treatment of the land based on local values and norms regarding what is allowed and what is not. This *ulayat* land is an important and complex part of the local community because it is used as a common property for collective well-being, with communal values embedded in it. This land has become part of their own identity in the local social and cultural entities.

In Nagari Batu Bajanjang, there are two uses of *ulayat* land, one for the present and one for the future. The current use is for farming and settlements for the local community. This land can be directly accessed by the community under the supervision of *ninik mamak* through the customary density of the *nagari* (KAN). Therefore, community knowledge, especially regarding *ulayat* land as communal property, remains fundamental until now. The local community has a high level of interaction with *ulayat* land because it plays a significant role in their economic sustenance. This also indicates the interconnectedness of the environment and humans as mutually influencing components, like two sides of a coin.

2. Medicine and Disease: The Importance of Water Resources for the Community

Water resources are perceived by the community as an essential part of the livelihood of many people. Water resources are used in everyday activities of the community and are crucial for life. Water resources are used for consumption, bathing, and irrigation of agricultural land. Nagari Batu Bajanjang, located on the slopes of Mount Talang, has water resources from two sources. One source is the flow of the Batang Lembang River, originating from Lake Ateh, and the other source is groundwater that is almost present in every *orong* (neighborhood) in the area. Currently, these water resources are not yet experiencing drought but are starting to decrease. This can be seen from the decreasing volume of water in the existing groundwater sources. Another evidence is the decreasing and shallowing water level in Tabek Gadang (a large pond). According to local stories, Tabek's water never decreased before, even during long dry seasons. Adequate water resources greatly help the lives of the local community. Water, as a gift from nature, must be preserved for the common good. The positive or negative impact on the local community depends on their own

treatment of water resources. Water can become a disaster if the environment, especially water resources, is not properly maintained. Therefore, the community is aware of the challenges they will face if a drought actually occurs.

Moreover, Nagari Batu Bajanjang has never experienced severe drought, which means the community does not have adequate anticipation measures if it were to happen. This situation highlights the importance of preserving the community's knowledge about water until now. The community consciously recognizes that their knowledge about water is like a valuable coin. Medicine and disease, an analogy used by the community to emphasize the importance of preserving knowledge about the significance of water. This becomes important for the community to preserve their local knowledge in the Geothermal development plan. Water is of utmost importance, just like *ulayat* land, which the community cannot allow to be damaged by the planned construction of the power plant.

This situation can be a critique of the community's level of concern for normative aspects related to water at present. Ideally, the community as a whole recognizes and understands how important water is for their lives. If this is not done, Nagari Batu Bajanjang will experience severe drought. The absence of other water sources such as dug wells and tap water also poses an unavoidable constraint if the water, which is the source of life, becomes a debilitating factor for the community's livelihood. Furthermore, the unpredictable seasons and weather conditions can further complicate the situation for the local community. The community knows very well how important water is to them. By preserving the old and young forests, especially on the mountains, the water will remain abundant and sufficient for their needs.

This serves as a guideline that the community realizes that the mountain forests play a role in maintaining the availability of water for them. Protecting the mountain is the first step in safeguarding the water resources for the community. Water and land are inseparable; these two components complement each other. The community of this *nagari* understands this, where the well-preserved natural potential is utilized for agricultural land and farming as a means of livelihood. In Nagari Batu Bajanjang, people utilize the environment as agricultural land and make it a source of livelihood. Farming and livelihood as farmers are a manifestation of the idea of utilizing local knowledge through the utilization of natural potential.

B. Farming as Environmental Conservation

- a. The fertile volcanic ash soil, continuous rivers, and continuously flowing springs never cease to make Nagari Batu Bajanjang have incredible natural potential. This potential is then utilized by the community of this *nagari* to support their families. The local community utilizes the potential of their *nagari* to cultivate various types of food crops. The local community has been utilizing the environment through farming since the time of their ancestors. It can be said that farming has become an integral part of the lives of the people in this *nagari*. From generation to generation, from grandparents to grandchildren, they have been familiar with their environment, especially through agriculture.
- b. This condition is one of the factors underlying the community's belief that the *ulayat* land of the *nagari*, personal land ownership, and water sources need to be preserved for survival. The local community indeed has an intensive relationship with their environment, one of which is through vegetable farming. To maintain their farming sustainability for their survival, the community indirectly preserves their own local knowledge regarding land and water. There are prerequisites that need to be fulfilled

- before engaging in agricultural activities. The availability of land guaranteed through *ulayat* land and the availability of water without damaging the forest and water sources. Water and land are a solid combination for the community to engage in farming.
- c. Maintaining good soil and water conditions requires the community to always pay attention to their surrounding environment. Vegetable farming as a livelihood also leads them to take actions rooted in the same idea of preserving the land and water. Vegetable farming as a means of livelihood is also a process of preserving knowledge, especially regarding land and water, within the community of this *nagari*.
 - d. Good farming with good yields also requires a supportive environment. Therefore, through their activities, the community of Nagari Batu Bajanjang, as farmers, also maintains the environmental support to keep it stable. If the environment is damaged, its support and regenerative capacity will not be sufficient to meet the needs of the local community. Here, it can be seen that the environment, such as land and water, is not just objects and places. In farming, land and water become a distinct space for the community to form ideas of environmental preservation, which ultimately lead to modifying the environment and sustaining their livelihoods. Using their local knowledge, the community clearly understands that the environment, such as forests, water, agricultural land, and land, have boundaries that must always be preserved. This can be seen through the agricultural culture that has been passed down through generations. The community always believed that the agricultural land they own will be inherited by their future generations. This practice also maintains the ownership of agricultural land grouped by *suku* as in the local settlements. This process not only passes down agricultural land but also passes down knowledge to preserve the environment itself.
 - e. Farming as the main livelihood shows that the community's knowledge regarding the environment, such as land and water, is well-preserved. This knowledge may not be fully inherited by the entire community, especially the younger generation. Working as farmers reduces the conversion of agricultural land into housing or other purposes. The economic benefits derived from farming bring the community closer to their natural environment. Chemical fertilizers, pesticides, and superior seeds cannot replace the advantages of the natural environment for the community. Farming may be more prominent in terms of its economic aspects, but fundamentally, it is through farming that the community has direct contact with the environment.
 - f. The community of this *nagari* has no choice but to preserve their environment, including through farming, and reject development. The local community relies on their knowledge of the fertile land potential and sufficient water as a mechanism to preserve the environment. The community believes that this approach is more environmentally friendly towards forests, land, water, and agriculture compared to the plan for geothermal power plant development. Therefore, the community's agricultural way of life is an advanced form of how they preserve their own environment.
 - g. Hence, preserving the local community's knowledge regarding the environment is crucial. Differences in understanding should lead us to understand one another. Development that originates from our own societal values (bottom-up) must be genuinely upheld to achieve sustainable development. The government and third parties must also view development from the perspective of the community, not just from a centralized approach (top-down), as the Indonesian society is diverse and unique.

Therefore, it can be concluded that *ulayat* land in the *nagari* of Indonesia is customary land owned and managed by the *nagari* community for generations. This land is crucial for the livelihood and sustainability of the community as it serves as a source of livelihood for them. The management of *ulayat* land should be conducted wisely and in accordance with local customs to ensure its fertility and yield good harvests. The *nagari* community must continue to fight for their rights to *ulayat* land in order to maintain their livelihood and that of future generations. The government also needs to support sustainable management of *ulayat* land for the sustainability of the Nagari community's livelihood and to maintain a balance between land use, water extraction, and food production to preserve a healthy environment and the well-being of the community. The management of *ulayat* land is an important factor in ensuring the sustainability of the Nagari community's livelihood.

In the context of the Batu Bajanjang Nagari community, agriculture is their main livelihood and the foundation of their lives. The local community has utilized their natural resources, such as fertile land and flowing rivers, to cultivate various food crops. In the process of farming, the community indirectly preserves their local knowledge of the environment, particularly regarding land and water. Additionally, they also maintain the environmental carrying capacity to keep it stable. Through the inherited agricultural culture, the Batu Bajanjang Nagari community views the natural environment as a space that must be protected and preserved for the sake of their own survival and that of future generations.

4. Conclusion

Basically, local knowledge that is passed down from generation to generation by communities plays an important role in shaping mindsets and perspectives towards the environment. In Nagari Batu Bajanjang, the community's knowledge about the environment, particularly regarding land, water, and agricultural areas, is considered sacred and distinct from other *nagaris* (villages). For the community, the environment is not just a mere reality but also a space that contains values, norms, and rules.

However, differences in perspectives between the community and the government and corporations become a source of conflict. The government and corporations view the environment solely as an economic commodity, while the community sees it as a property that needs protection. The construction plans for a geothermal power plant carried out by the corporation disturb and divide the community because of the sacred local knowledge that is considered unalterable.

There are several crucial pieces of local knowledge that the community deems important to preserve. These include knowledge about land, specifically the communal *ulayat* land of the *nagari*, knowledge about water, and the community's local knowledge about agricultural land as a form of environmental preservation. Through agriculture, the community also maintains their environment, and the availability of land and water needs to be well-preserved.

Development that does not start with the existing local knowledge of the local community is seen as something forced and not in line with the values of Indonesia and even other Asian countries. Therefore, it is important to understand and incorporate the values of local knowledge from the community as a solution to various development issues.

LIMITATIONS OF THE STUDY

The limitations of this study are confined to the examination of a single culture and a single developmental perspective. Further research involving various cultures is needed to ensure more representative results.

Acknowledgments: This research received support from an educational institution in the form of a cover letter as research legality and other administrative support such as technical and administrative assistance.

Conflicts of Interest: The researchers declare that there are no conflicts of interest that could influence the findings or interpretation of the reported research.

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