Durian Demang Choice: Searching for A More Sustainable Future

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The aim of this article is to document the learning of the Durian Demang community to switch their land use from an ex-stone mining towards a tourism village. The village has been suffering due to stone mining exploitations for many years. Only in fifteen years, it lost one of the twin hills. This article attempts to answers a question about why the village community chose a land restoration of the former a stone mining area into a tourist destination. The study applies a participatory qualitative method; in which at the fieldwork, it implements several stages of FGD. The first step, it is assessing environmental damages, documenting the agricultural economic potentials, as well as human resources potencies. The second phase, it is bringing together community hopes and agreements for future development. The third stage, it is looking for an alternative development, which is more sustainable and prosperous. The fourth stage, it is to develop a multiparty "consortium" to support Durian Demang; it reaches a new form village development plan, a Tourist Village. Result of the study indicate that the community chose to converse their village into a Tourist Destination. The option is based on three basic concerns: (1) the village development will be directed towards a sustainable development spirit, (2) it is designed as a tourist destination as it promises a panoramic icon of Bukit Kandis. (3) It contributes towards a poverty eradication scheme.

Key words: A tourism village, Poverty eradication, Stone mines, A micro sustainable development scheme, Durian Demang Village

1. Introduction: A Land Conversion Project

This article discusses a land conversion project of Bukit Kandis in Durian Demang village. Previously, it was a stone mine location, it comprised of two main hills: Bukit Kandis and Bukit Beringin. Up to the year 2016, when research team started the study, Bukit Beringin has completely gone, flat; Bukit Kandis stays with a terrible situation. A stone mine in Bukit Kandis is not the only a natural damage done by human. Lots of stone mining occur in Indonesia, and also in various parts of the world.

According to Quora report (2016), rock mines generally belong to a country, not own by individuals. The rock is raw materials for cement and asphalt plants. Rock cannot be transported very far from the resource. According to Quora's

report, rock is delivered under 50km radius of transport. That is why the local government funds to build roads and other infrastructures. Stone mining remains a promising great business. Quora identifies that penerbitan licenses to mine the rock close to corruption cases. Business persons should have a good relation to the local official to get licenses.

IBISWorld report about "Stone Mining: US Market Research Report" shows that up to May 2018, stone business in the US remains strong and very good. The business supports road construction projects as well as other infrastructure projects. Stone mines are contributed to other industrial businesses. According to the report, by the year 2023, this business remains increasing significantly, especially for infrastructures, housing/residential construction, and commercial building.

Many terms for stone mining, for example quarry. A quarry is a place from which dimension stone, rock, construction aggregate, riprap, sand, gravel or slate has been excavated from the ground. A quarry is the same thing as an open-pit-mine from which minerals are extracted (Wikipedia, 2007). Stone is excavated from the ground as clay, sand, coal, moat, rock, riprap, gravel, construction aggregate, and other things. The mines left behind open-pit holes. In Bukit Kandis case, stone mining was carried out on rocky hills. The ex-stone mine looks like a location of open flat land.

If we are browsing to internet, it shows hundreds photos, articles, and videos telling us about rock or stone mines from all over the world. In India, stone mining is a great business. Most of the cyber information sources such as D-World Explores, Stone Quarry Mines (NOVOPAy RBL CSP), and Wild Film India – Marble Crusher on Cutting Unit: Stone Mining in Rajasthan, for example, mentions about the mine businesses.3

Stone mining data in Indonesia

Through internet surfings on rock hill mining, hundreds of portraits and articles came out about the location of stone hill mining. For example, there are limestone mines of Tui Hill, Batu Kajang, Bukit Daun, Bukit Jamur, Siwa Plateau and Gunung Buthak in Gunung Kidul,4 Bukit Batu Basi in Nagari Tigo Koto,5 Bukit Kedungpring, Piered Bantul Regency,6 and many rock and mineral mining in Indonesia7

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2 http://www.ibisworld.com/.../mining/stone-mining.html
4 http://www.liputan6.com, 6 Marat 2017
5 http://plus.google.com/1136324121916476278050/posts/ST6P2Rz7g9c
7 The most popular stone and Mineral mining in Indonesia is gold mining in Papua by Freeport Company Indonesia. Freeport is not only mining gold ore, it also mines other kinds of ore, such as copper and silver in large quantities (95%). The final product is concentrate, or mineral sand.
Table 1: Stone Mines in Some Sites in Indonesia, 2018

<table>
<thead>
<tr>
<th>Name of the Location</th>
<th>Party of the Stone Mines</th>
<th>Business and Chains</th>
<th>Environmental Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bukit Kedungpring -</td>
<td>Individual with simple tools</td>
<td>Medium Contractor</td>
<td>The hill becomes flat in 12 years</td>
</tr>
<tr>
<td>Bantul Yogyakarta</td>
<td></td>
<td>Head of Village</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Police</td>
<td></td>
</tr>
<tr>
<td>Bukit Batu Butak -</td>
<td>Individual</td>
<td>Medium Contractor</td>
<td>Erosion / slide</td>
</tr>
<tr>
<td>Gunung Kidul</td>
<td></td>
<td>Head of Village</td>
<td></td>
</tr>
<tr>
<td>Yogyakarta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Galogandang, Bukit</td>
<td>Citra Tambang Lestari</td>
<td>Big Contractors</td>
<td>- Water pollution</td>
</tr>
<tr>
<td>Batu Basi, Nagari</td>
<td>Company + Australian</td>
<td></td>
<td>- Air pollution</td>
</tr>
<tr>
<td>Tiga Koto</td>
<td>Company BHP Billiton</td>
<td></td>
<td>- dusty</td>
</tr>
<tr>
<td>West Sumatra</td>
<td></td>
<td></td>
<td>- Environmental damages due to heavy equipments</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Social disruption due to pro-contra the mines</td>
</tr>
<tr>
<td>Bukit Ciwuni, Cilacap</td>
<td>Big Company</td>
<td>Big Contractors</td>
<td>- Environmental endanger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Local Infrastructure damages</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Social conflicts</td>
</tr>
</tbody>
</table>

Sumber: various internet sites, 2018

Data of land conversion from ex-mining land into tourist destination in Indonesia

At least, there are 10 tourist destination identified as previously ex-mining locations. Summary description of the ten tourist sites of former stone mines, can be seen as follows:

Table 2: The Tenth Most Popular Ex-Mining Tourist Destination in Indonesia

<table>
<thead>
<tr>
<th>Name and Location</th>
<th>Kind of Mining</th>
<th>Tourist Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bukit Jaddih, Bangkalan Madura, East Java</td>
<td>Limestone mine Stay active</td>
<td>Swimming Pool</td>
</tr>
<tr>
<td>2. Brown Canyon, Semarang, Central Java</td>
<td>Stone Mine Stay active</td>
<td>Rock hill tour it looks like the US Grand Canyon</td>
</tr>
<tr>
<td>4. Tebing Breksi, Yogyakarta</td>
<td>Stone Mine Closed</td>
<td>Rock cliff tours</td>
</tr>
<tr>
<td>5. Danau Kalnin, Perawas, Tanjung Pandan, Belitung</td>
<td>Kaolin Mine</td>
<td>A lake with Tosca blue water in it and small hills of ex-mining.</td>
</tr>
<tr>
<td>6. Telaga Ngipik, Gresik, East Java</td>
<td>Clay Mine Closed</td>
<td>A City Lake</td>
</tr>
</tbody>
</table>

https://www.merdeka.com/.../penambangan-bukit-ciwuni-bikin-warga-cilacap-geram....

https://www.brilio.net/.../10-lokasi-bekas-penambangan-yang-kini-jadi-tempat-wisata...
The number of land conversion functions caused by stone and mineral mining is an implication of the development of the stone mining business in Indonesia. Although the ex-mining rock tourist places in Table 2 above shows very beautiful panoramas; it remains a monument of the natural destruction and the environment damages due to large-scale business exploitation. The beautiful tourist areas witness the suffering of the communities surrounding, especially when the mining was still active. The conversion of ex-mining land to a tourist area is one of the solutions; so that the community is compensated for its losses and suffering due to the exploitation of the mining business.

The Ministry of Environment and Forestry (MEF) has a project to restore former open pit mining under the Directorate of Open Access Land Damage Recovery Sub. Directorate of Inventory and Institution. In 2016, the MEF opts Bukit Kandis of the Durian Demang village as one of the land conversion projects in Sumatra. Prior to 2016, MEF was doing a feasibility study. The study shows that Durian Demang village is in line with the MEF’s goals, both from the environmental concerns and from the situation of the relatively less prosperous communities.

Since the first year, the ex-open-pit-mining recovery project has carried out in collaboration with the University of Bengkulu, especially the Faculty of Social and Political Sciences. Socio-economic-cultural based assistance by Faculty of Social Sciences has been carried out two years ago until now. This article aims to share mentoring experiences in accompanying the Durian Demang community to change their village area towards the stone tourist destination.

**Reviews of Some Studies**

Study of Avery, Sipple, and Sweeney (2018) about cooperative development framing shows interesting results. Community capital framework is found as a clue success of community projects. Community development projects not only influence their resource potential, there are other strong influences, namely value, which consists of diverse cultural values, and symbolic power; and access to the resource.

In general, community development programs for poverty alleviation are filled with income-generating programs. Apparently, the study of Carson and Chowdhury (2018) shows that poverty programs are not only to respond to...
situations of the poor income families, but they are also to address the issues of helplessness, hopelessness, powerlessness, inequality, and marginalization of the poor. The study found that collaborative programs carried out by State-NGOs-Professionals, through the Lay-Counselor Program Training and Family Life Education were able to encourage socio-economic development of individuals, families, and communities. The program also impacts on poverty eradication, enhances healthy human development mental and emotional, and healthier overall resilience of the family.

To complete Carson and Chowdhury (2018) study, Holland, Hatcher and Poole (2018) study in Trujillo - Peru about Nisolo Project - a social entrepreneurship program, ensures that community development is able to guarantee a sustainable social capital model. Indeed, there is a difference situation between Trijilo, Peru and Durian Demang, Bengkulu, Indonesia; but the Nisolo program which focuses on an enterprise-based social entrepreneur in the small shoe industry can be an inspiration for the development of land conversion programs in Durian Demang.

The Nisolo Project gives a social impact on small economic activities in the village, and encourages the emergence of social entrepreneurship in the community. With the agenda of job creation, fair wages, health insurance, life skills training, worker savings programs; the Nisolo project not only encourages social change, but it offers a sustainable social capital.

In addition to Holland, Hatcher and Poole studies (2018), there are results of entrepreneurial learning skills in other interesting marginal communities. The study of Dahlroom and Talmage (2018) notes that the SCORE program in the United States of America successfully sows successful entrepreneurial skills at the local level. The community is able to create a prosperous and enduring life. Small businesses at the local level are community assets. So that local entrepreneurs and businesses also become welfare boosters. Through the SCORE program, communities are trained and assisted to start small businesses. The SCORE program uses a practice-based model.

Some of the previous studies show the existence of the root of welfare issues in community development. A collaborative research of the Faculty of Social and Political Sciences at Gadjah Mada University, Yogyakarta and the University of Oslo for "Power, Welfare, Democracy" shows that in Indonesia, currently, there is a growing demand for welfare. Political development has also gone beyond the electoral political context. The issue of "Indonesia Welfare Regime" began to emerge, even in the local community and amongst small communities. Content of Indonesia Welfare Regime includes strengthening inclusiveness in local power structures, institutional capacity at the local level, and management of public resources by formal authorities. So the three powers of authority: community, market, and state protect welfare provision (Hiarie and Stokke, 2017, Mas’ud and Lay, 2018; Bayo, Santos, Samadhi, 2018).

The complexity of conception and operation of the Welfare Regime is experienced by many countries in the Global South region (Savirani, 2018). The
reason for the complexity is marked by the seriousness of the downturn at the local level, and the failure of the State to overcome various dimensions of crisis.

Crucial findings from previous studies on the community development have become important concerns, and comparative developments for a land conversion in Durian Demang village. An important focus of the literature review that needs to be noted is the issue of welfare demand and strengthening of local institutions in managing assets. Those two clues are important issues in community development in Indonesia.

Methods of the Study

The Approach of this study is an inductive thought. Inductive methods are needed to get community interest about land conversion, mapping the village’s socio-economic strength is also important, especially the political contestation of the policy during mining and at post-mining time.

Like many development policies, Durian Demang inherits an elitist policy model. In this study method, all layers of community are invited to discuss so that the future of the land conversion program belongs to many parties, benefits to many parties, and becomes one of the solutions to poverty alleviation.

Besides conducting some interviews to key person who have knowledge on local history and process of stone mining, environmental damages, and other social problems; this study also held thematic group discussions. Interviews were involving community leaders, hamlet heads, farmers, illegal miners, village administrators, village heads, secretaries, female leaders.

While, Focus Group Discussions (FGD) were done in three steps. The first phase, the FGD was carried out with the village authorities. The second FGD, a larger group of community members were invited. Community groups of families who were still active doing mining individually on hills, are also invited. Multi-stakeholder meeting was also provided. Multi-stakeholder meetings were held to strengthen commitments and make consensus agreements. The meeting were used for lobbying and binding the power holders at the regency and provincial levels to support the interests of the community.

A Portrait of the Field Site

Durian Demang is a village of Karang Tinggi District, Bengkulu Tengah Regency, Bengkulu Province, Indonesia. The village area is around 750 km2, with topography hilly and lowland; the land pattern is suitable for agricultural and plantation areas.
The population of Durian Demang is 1569 people out of 409 households. The death rate is 5 percent per year and the birth rate is 15 percent per year, while migration is 0.5 percent per year. The majority of the population is native Rejang; while some other ethnics are Sarawai and Lembak. Their main livelihoods are rice farming, and planting rubber, oil palm, coffee.

The Bukit Kandis area is located in Durian Demang Village, covering an area of about 24 ha. Residents often refer to Bukit Kandis as the younger brother of Gunung Bungkuk. The hills are called Bukit Kandis, because all area of the hill was full of Kandis trees, from the slopes to the peak. The forest of Kandis made the area cool, green, beautiful and fresh. Bukit Kandis had a twin brother, named Bukit Beringin. Batu Bukit Beringin had been mined, and now it is gone, and flat.

The dense trees now changed into arid and hot rocky hills. Bukit Kandis and Bukit Beringin are now surrounded by palm oil and rubber plantations, some belong to the communities, and some other plants belong to big capital owners. Major changes in the natural ecosystem in Bukit Kandis and Bukit Beringin have not just happened. Former mining activities are very visible, such as upright stone walls and landslide prone areas on many sides. This has caused by several factors, mostly by human aggressive activities.
Figure 2: Bukit Kandis and Bukit Beringin View, Year 2016

*Source: Research Documentation, June 2016*

Figure 3: Stone Mining Occupation

<table>
<thead>
<tr>
<th>Name of the Company</th>
<th>Period of Occupation</th>
<th>Important Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.T Bengkulu Mandiri</td>
<td>1994 - 2014</td>
<td></td>
</tr>
<tr>
<td>Prohibited Mining</td>
<td>2014 - now</td>
<td>Illegal Mining</td>
</tr>
</tbody>
</table>

Source: Fieldwork, 2016
Notes:
P.T = Company

**Results and Discussion**

Interviews, observations, and FGDs produce social mapping. A social mapping describes the physical environment and the condition of the community, so that it can be used to analyze and explore with the community to sharpen the design of land conversion. The process of building a systematic learning is a process of using critical intelligence to discuss their actions and develop them, so that their social actions can truly influence social change.

In Durian Demang case, social mapping describes the socio-economic conditions of the community, settlement positions, sources of livelihood, roads, health services and public facilities of the village. It also covers social position of Bukit Kandis.

The main problem that arises in the ex-mining area is environmental changes. Chemical changes mainly have an impact on ground and surface water, continuing physical changes in morphology and land topography. Furthermore, there is a change in microclimate caused by changes in wind speed, disruption of biological habitats in
the form of flora and fauna, and a decrease in soil productivity with the result of being barren or bald.

Figure 4: Social Mapping on Village Identity

The communities involving discussion recognize that the village identity is like a system containing various interactions with other parties, through the context of village tourism agenda, the development of village institutions for the future, and partnerships with internal and external orders.

Briefly, the core of the study results show that land conversion, from the environment damaged by mining to a more promising future, brings the community to welfare expectations as described by Hiarie and Stokke (2017), Mas'udi and Lay (2018); and Bayo, Santoso, Samadhi (2018). The FGD participants realize that the community awareness lies on the village social capital (Avery, Sipple, and Sweeney, 2018), and there is a need to an agreement on sustainability as equivalent as the ideas of Carson and Chowdhury (2018).

Study of Agnitsch, Flora, and Ryan (2006), Bridger and Alter (2006) show similar phenomena. The issue of community development is always intertwined with social capital. The study of social capital in community development is the work of Agnitsch, Flora, and Ryan (2006). The purpose of their research is to examine the individual and combined effects of two forms of social capital, bonds and intermediaries, and the actions of communities in cities and rural areas. The study found that one source in the potential structure of local social relations is the stock of social capital in society. The findings of the study show that both connecting social capital and other social bonds significantly influence the actions of society. In addition, interaction is found as a form that can replace weaknesses in other places, where both are not so strong.

The community identifies in detail the potential of Bukit Kandis as a conversion site for ex-stone mines. Because, for some years, visitors of Bukit Kandis have carried out various activities in accordance with the site of the former stone-mining. Based on the discussion, it was revealed that potential activities in land conversion in Bukit Kandis were (see. Figure 5 below):
Several previous studies show that institutional strengthening of community-based development began with exploring the original interest of the community group. Community-based development is important in ensuring the sustainability of the community’s development. Commitment of the community to an internal agreement-based development is a social capital, and a social solidarity, it is guaranteeing the future of local community welfare, and alleviating poverty.

Steiner and Markantoni’s study (2014) reinforces the phenomenon of community development. Their investigation of capacity building programs for community change shows that community involvement and empowerment, especially in building an inclusive community, influences the resilience of the community. In the study, endurance is seen from its social and economic components. The results of the study indicate that there is a relationship between local, regional and broader socioeconomic resilience. In addition, some differences in services and resources also influence the resilience of the population.

Other than economic components, a community development has an important issue, namely social enterprise. Eversole, Barraket, and Luke (2014) state that social effort is a new form of community institutions, which contains the character of a business to seek profit, and a non-profit community organization. In their research, Eversole, Barraket, and Luke investigated how communities in rural areas use social enterprises to accelerate the progress of increasing local social and economic sector development agendas. The study of social efforts, although different in size, mission and age, all relate strongly to locality, and their communities. This social enterprise community is a development agent; they strive to achieve the results of development in the village, especially to mobilize their social capital.

In Durian Demang, agreement and commitment of the people to support and take care of the development program for the ex-mining area are positively noted; but the process was quite long, it takes for two years. Indeed, it is not easy to internalize land conversion program; because there are minorities who are still actively mining stones at the area personally. Although personal, there must be big business people who back up the stone mining business.
The results of the Durian Demang study show that there is a gap between culture, village assets, and local power. Perhaps, Burnell's study (2013) is an explanation that strengthens the argument. Burnell mentions for an important factor in the role of culture and cultural action; both are assets and sources of strength, and long-term community resilience. For example, in his study, it lies on the Small Change asset-based approach and the United Kingdom-based Small Change Forum (SCF) initiative. When examined, cultural variables become valuable drivers and resources to increase the resilience of community solidarity. Cultural action turns out to be the key and asset for change. This means that culture is an important key in community development.

Another study done by Gilberthrope (2013) on community development programs is very interesting, and can be compared with the study of Durian Demang. Besides the development of the social situation and the impact of the intervention program, it is clear that the role of local community leaders is very strong in the rural development. Unfortunately, in some cases their active role is not integrated and tends to be forgotten from local development policies. According to the Gilberthrope study, the negation of the role of local leaders can not only lead to conflict, but "communality" and "community" discourse can disrupt the development agenda. The Papua New Guinea mines show that the design of rural development needs to incorporate the dimensions of culture and actor culture into development programs. This strategy is also very important for policy principles and implementation actions.

Back to Durian Demang case, the second step of conversion land is an institutional strengthening. The results of the study illustrate the institutional framework and processes that need to be undertaken to deal with land conversion are:

**Figure 6: Village management Steps for Tourism**

![Diagram](image)

Notes:
- BUMDes is A Village Owned Enterprise
Fieldwork shows that participants prefer to put the village apparatuses and BUMDesa being partners in managing tourism programs. The two village teams became sustainable social forces in rural development, especially for the purpose of the examining land improvement program. Figure 6 below is an institutional scheme for tourism village management from people's thinking.

Figure 6: A Participatory Designed Institutional Framework

Concluding Remarks: A Negotiation Process and "Win-Win Solution"

Participation is a central issue for communities preparing to converse to community tourism sites in Durian Demang. Community participation is the key in rural development, especially in the tourism sector. One important study for reference to this article is the Kimengsi, Azibo, and Gwan (2016) study.

The study in Cameroon recognizes that there is a large gap between urban and rural areas. Facing this situation, the policy of the Cameroon government chose promotion to support independent development. Communities are involved in a series of community development activities, they define themselves in various sectors based on locally identified abilities and resources. Indeed there are obstacles in the efforts of indigenous peoples to increase community participation, for example in Central Ejagham. It turned out that the level of participation in most projects failed because of the existence of "collectors" or "citizen control" from certain layers. In addition, although the "collectors" project in Central Ejagham gets a lot of financial and technical support, they are not able to be burdened with commitment challenges. Conversely, projects that are "citizen controlled" are marked by significant commitments, but participation is hampered by limited resources (financial and technical).

Mining experience from companies to companies is enough to make people aware of the risks of environmental degradation and unsustainable schemes. The mine also produces inequality between residents, because only individuals work in mines that enjoy mining products. Bukit Kandis is currently prone to landslides, reduced beauty, erosion. To overcome stone mining traditional, there needs to be a way out. The stone mining group needs to be assisted in order to reorganize the Bukit Kandis area.
Citizens’ agenda, as well as village officials need to be supported and cared well from the State, the Private Sectors and Universities. The next stage, for environmental sustainability, all of the institutional arrangement should take social, economic, and other parties into account. Institutions will be designed by Durian Demang residents, for the welfare of local residents.

Currently, an ongoing implementation towards tourism village is in process; infrastructure developments are supported by the Ministry of Environment and Forestry, Provincial and Regency Governments. Capacity building for the village community is done by Bengkulu University; and the local communities reinforce themselves by searching all of their social capital and culinary traditions.

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