

Research Article

Hadnagy's Lesson Learned: Social Engineering Analysis in Road Development at Mesuji Regency

Andi Windah*, Ahmad Riza Faisal, M. Taufiq Widodo

Doctoral Program of Development Studies, Faculty of Social and Political Science, Lampung University

ORCID

Andi Windah: <https://orcid.org/0000-0003-3094-7759>

Ahmad Riza Faisal: <https://orcid.org/0000-0003-4175-8582>

Abstract.

Land acquisition is usually the biggest obstacle in infrastructural development activities in many areas in Indonesia, which in turn boast potential deterioration to the development. Thus, one of the strategies used by the Indonesian government to reduce the tension is by using the social engineering approach. It is seen as one of the pertinent approaches in development, particularly when development implementation is potent to cause social clashes. Mesuji Regency, a relatively new regency, is one of the perfect examples when the regency's small budget has to accommodate the acceleration of infrastructure with possibility of social conflict in hand, due to the regency's road widening activities. To solve this, Mesuji Regency Government performed a social engineering process that is quite interesting to study. This study analyzes the social engineering process that occurs in the regency based on the Hadnagy's social engineering principles. The study uses qualitative-descriptive approach to present the government's social engineering approach. The results showed that the government used two approaches in carrying out social engineering namely the influence approach by applying the concession, authority, and social impact principles and the manipulation approach by using increased susceptibility principle.

Keywords: development studies, land acquisition, Mesuji regency, social engineering

Corresponding Author: Andi Windah; email: andi.windah@fisip.unila.ac.id

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1. Introduction

One of the biggest obstacles in development both on a national and regional scale is financial capacity. This condition ultimately requires the government to involve various stakeholders in the development process and financing. In this case, the government's role is very much needed, especially to be a catalyst as well as the main actor in the development process, because the government has great access to the policy-making process, namely in planning formulation, policy implementation to the evaluation stage of policies that have been implemented. This reality shows that the government's position is the main driver in the development process in society (5). Meanwhile,

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according to Suraji and Embi (13), in the current era of globalization, the community is expected to be the main pioneer in driving the development process. This means that the government must carry out various strategies as an effort to increase the ability and independence of the community itself, especially in the era of regional autonomy in Indonesia which regions must be able to finance their own households.

Mesuji Regency as one of the areas that is still partly young, resulting from the division of the Tulang Bawang Regency, certainly has far greater challenges than the regencies that have been established for a long time (4). The regency's main challenge is the financial capacity of the region as it has the smallest regional income in Lampung Province besides Pesisir Barat Regency (1). Moreover, the regency's dependence on central transfer revenues is still very high. In addition to that, the regency cannot employ its potential on mining materials in the form of coal which is widely available around its areas because the calorific level has not yet reached the standard for exploitation so that materials cannot be managed as a source of regional income.

In fact, the regency's low financial capacity becomes the main obstacle for the Mesuji Regency Government to catch up with various development gaps. This challenge is especially in accelerating the preparation of infrastructure, both infrastructure and superstructure (3). When viewed from a geographical point of view, the area of Mesuji Regency is quite large with most of the area in the form of swamps so that the physical development costs are much more expensive than other areas. The physical problem that stood out in Mesuji Regency at that time was difficult road access, from some villages or from the village to the center of the sub-regency capital. The road conditions in the area are very bad because in general they are in unstable swampland so that many roads are bumpy, potholed, slippery and of course muddy in the rainy season. In fact, until 2013 there were not a few villages in Mesuji Regency that did not have road access as a liaison with other villages or areas, for example the road to Kagungan Dalam Village, Sri Tanjung, Tanjung Harapan, Connecting Road between Wiralaga II Village and Sumber Village. Prosperous, and the road to Cambai River Village. In this case, the local community is forced to use river access which costs a lot more (12).

The issue of road access has been complained of by the Mesuji community for a long time, even though this problem existed before Mesuji Regency was formed, namely when it was still in the Tulang Bawang regency and even further when it was still part of North Lampung Regency. The poor access to transportation and the quality of land roads make it very difficult for the community to access some government facilities, including difficulties in accessing economic facilities to meet their daily needs and other

needs. This condition is one of the main causes of poverty, isolation, and backwardness of people living in villages on the banks of the Mesuji River.

Since 2013, the Mesuji Regency Government has made a breakthrough in development policies by prioritizing the development of basic infrastructure in Mesuji. Development priorities are focused on opening roads, widening roads, and improving road quality (11). To open the road and widen the road body is done by using heavy equipment. Initially, the width of the road was only 1 to 4 meters, since 2013 it was opened and widened to 14 to 20 meters. With the widening of the road, the access road to the villages is very wide. The establishment and widening of the road that is carried out certainly requires very large funds. Especially if implemented through a third party or private. Mesuji Regency, which is still partly young in age, has a relatively small amount of the Regional Revenue and Expenditure Budget (APBD), which until now still relies heavily on the General Allocation Fund (DAU) and the Special Allocation Fund (DAK).

The strategy taken by the Mesuji Regency Government to overcome road construction with minimal funds is to buy heavy equipment and supporting vehicles such as excavators, backhoe loaders, self-loaders, dump trucks, and so on. The procurement of various heavy equipment uses APBD funds through the e-catalog mechanism. The purchases were made in stages, starting from 2013 to 2015 and will continue in the following year. Until 2015, the number of various heavy equipment and their supporting vehicles was 62 units. This is the largest in Lampung Province. In the construction of this road, the Mesuji Regency Government has also implemented a self-management strategy. In other words, the work is carried out by the government as part of the local community, not by third parties or private partners. This method is done to anticipate the high cost of road construction and road widening. Moreover, areas where the land is still unstable because most of the Mesuji Regency area is in the form of swamps. In this case, what is done through the auction mechanism is only the procurement of heavy equipment and supporting vehicles, fuel oil (BBM), and stones. With this self-managed process, the Mesuji Regency Government is able to make savings or budget efficiency up to 75 percent of the budget that should be done if it is through partners. In addition, the work can be carried out at any time according to need, for example when road damage occurs due to heavy rain or other natural factors. Meanwhile, if the construction of the road uses the services of a partner, in addition to the calculation it can cost more than half of the Mesuji Regency APBD, it is also limited by the implementation time specified in the contract.

Land acquisition is usually the biggest obstacle in road widening activities in many areas, but not for Mesuji regency (9). Since the development is self-managed, the local

community is very supportive. This support is manifested by the willingness of the residents to donate some of their land affected by the widening of the road. The desire for the opening, widening and improvement of the road body is basically a proposal from the community. So that the role of the community in supporting and succeeding in road construction is very high. However, in the process of land acquisition, there are still some residents who refuse. Of course this brought its own challenges for the Mesuji Regency Government, although later this refusal led to acceptance. In this condition, of course it should be used as a lesson in the social engineering process that occurs. Based on these facts, this paper will then describe and analyze the social engineering process that occurs in Mesuji Regency based on the social engineering principles proposed by Christopher Hadnagy (2).

2. Methods

This study is located in Mesuji Regency, with considerations need to do study to identify and analyze the social engineering carried out by the Mesuji Regency Government in the case of road infrastructure development. This study uses qualitative approach with reasons that the findings in qualitative study is not obtained through statistical procedures or forms other calculations and types of study descriptive is used for describe in detail about a situation or event actually described related to the object under study. In meaning, qualitative study that is, study that intends to understand the phenomenon of what is experienced by the subject study, for example behavior, perception, motivation, action, etc., holistically (whole) and in a way description in words and language in a particular context natural by utilizing various natural methods.

Target informants in this study is the employee at Mesuji Regency Government, and parts in the office that can provide information that needed including community as recipient of policy. Data collection technique used in study by doing direct interview to informants with using interview guidelines. Observation in the field according to the object under study, documentation with studies literature/library and other written sources that have relation to data requirements are also elaborated to collect information on this study.

The data analyse in the study refers to steps used by Miles and Huberman which consists of three streams of activities simultaneously, including: data collection; data reduction; display and withdrawal conclusion/verification. For improve the ability of researchers in assessing the accuracy of the results study and convince readers about the accuracy of the study done, then must use various strategies in carrying out

validation. Furthermore, Sugiyono suggested that data analysis the process of searching and compiling systematic data obtained from interviews, field notes and documentation, by means of organize data into categories, breaking down into units, synthesizing, compiling in the pattern, choose which one important and to be studied, and draw conclusions so that easy to understand by yourself nor other people.

3. Results and Discussion

3.1. Mapping of Road Development In Mesuji Regency: Problem Identification and Implementation

The Mesuji Regency Government around 2013-2016 attempted to map and identify both problems and potential strengths related to the condition of road infrastructure in Mesuji Regency (8). These efforts succeeded in identifying some of the problems faced, namely:

1. (a) Very poor road quality. Most of the roads in Mesuji Regency are in very bad condition, muddy, and lack of hard roads. Especially on roads leading to peatland areas and villages on the banks of the Mesuji river.
(b) There are still many roads that have not been formed. Even if it has been formed, it is only modest, not wide (about 4 to 6 meters).
(c) The high cost required for handling road infrastructure. This is because as a New Autonomous Region (DOB) at that time, Mesuji Regency had a very minimal APBD. Meanwhile, the price of materials for infrastructure development in Mesuji Regency is very expensive compared to other areas in Lampung Province. This became a special difficulty for the Mesuji Regency Government to be able to solve the road infrastructure problem at that time.

After successfully identifying development problems, the Mesuji Regency Government then tried to make a breakthrough, especially in the field of road infrastructure development, namely by opening new road bodies and massively widening existing road bodies throughout the Mesuji Regency area, both village roads, as well as village roads . district roads, as well as provincial roads (10). The breakthrough was carried out with such efforts based on the spirit of low-cost development to overcome the problem of road infrastructure development which actually requires very high financing. The methods that have been taken by the Mesuji Regency Government at that time were;

1. (a) Purchased a number of heavy equipment to be used to handle road infrastructure problems in Mesuji Regency independently (not through partners or third parties in the process).
- (b) Inviting the community to participate in development by giving up their land to be affected by road widening without compensation.

Initially, the Mesuji Regency Government through related agencies carried out direct action with village government officials (hereinafter abbreviated as Pempdes) and community leaders to communicate with residents. Efforts to go down directly are carried out with a formal approach, namely through village meetings, recitation activities, and visiting community groups. The target of this activity is residents whose land is affected by the development program. The purpose of the formal approach is to foster the will of the target villagers so that their land directly adjacent to the road is willing to be subject to road widening. In this case, the community is built on their insight into the economic value of land which will increase significantly if it is located on the edge of a wide road. In addition, the community is also invited to think ahead about economic growth which will occur more quickly if road access is good. to let the land be affected by road widening (7). In this case, the community who owns the land along the road section to be widened stated that they agreed and for that they were willing to make an agreement report and did not ask the Government for compensation for the eviction of their land.

Of course, these efforts did not run very smoothly. There are a small number of residents who refuse to have their land widen. Facing obstacles like this, the Regency Government and the Village Government, as well as local community leaders continue to communicate and modify the approach taken in addition to the formal approach as well as take an informal/family/personal approach to these residents. Some of these family efforts finally succeeded, but there were also residents who remained adamant not to let their land be affected by the road widening program.

Like the saying "the dog barks the caravan passes", in facing the unwillingness of the residents whose land will be subject to road widening, the Mesuji Regency Government ignores or doesn't make a problem. The Mesuji Regency Government continues to lower heavy equipment and continues to carry out road widening realization, but only in locations where residents are no longer in trouble. Meanwhile, on land that is still problematic, the land is left unattended and not worked on by heavy equipment. This incident was intended for residents who objected to being evicted, and usually these objections were related to compensation for planting rubber trees, oil palm, and other productive plants. The reasons for other residents' objections were also for reasons

other than those mentioned earlier, some even objected for political reasons because he was not a supporter of the elected Regent (at that time) at the time of the *pilkada*.

This omission resulted in conditions that went awry for residents who raised objections, and in the end it became a "boomerang" for residents who refused to have their land evicted. This happened because after the road was formed the foundation was visible the difference between the lands of residents who objected and those who did not. Residents who object to owning a different form of land, because it protrudes into the body of the road that has been widened. These real differences give pressure or conformity to those who object and then become a kind of social sanction for the land owner. As a result, in the end, the residents who were initially reluctant, even later they themselves submitted to the village government to ask for their land to be evicted as well for road construction.

The program and the unusual method carried out by the Mesuji Regency Government continued to be echoed, both through social media (Facebook) at the time and also news exposure by the mass media. The positive impact is, if at the beginning the Mesuji Regency Government, which was pro - active, went to the bottom to build public awareness, then later it turned around. Many community groups took the initiative to gather and discuss to then make a report of agreement and request to the Mesuji Regency Government to widen the road that passes in front of the house or land. For information, the red soil from the widening and siring excavation of the road body is then transported to fill the damaged road bodies that are scattered in Mesuji Regency, especially on road bodies in peat-land areas and areas leading to old villages on the banks of the Mesuji river. This development pattern is considered successful because it has indirectly built public awareness to participate in regional development in the early days of the formation of Mesuji Regency where the APBD is very minimal. In addition, with this pattern of mutual cooperation and self-help development, the Mesuji Regency Government can solve the road problem in Mesuji Regency at a very low cost, and before the land issue became a big problem as it is today (related to compensation).

3.2. Seeing Through Hadnagy's Perspective : Social Engineering Through the Use of Influence in Mesuji Regency's Road Development

The study uses social engineering principles according to Christopher Hadnagy (2) in his book " Social Engineering: The Science of Human Hacking ". The study uses basis for analyzing the problems of road construction in Mesuji Regency that require

social engineering, Hadnagy divides the social engineering approach into two major domains, namely engineering through influence and engineering through manipulation (manipulative). Hadnagy (2) defines influence as an action to make someone want to do what we want them to do, or in other words, getting someone to want to do what you want them to do.

In terms of giving influence, Hadnagy (2) outlines several principles that can be used as guidelines in carrying out social engineering, namely:

1. First Principle; Reciprocity
2. Second Principle; Bonds (Must)
3. Third Principle; Concession _
4. Fourth Principle; Scarcity (Rarity)
5. Fifth Principle; Authority _
6. Sixth Principle; Consistency & Commitment
7. Seventh Principle; Like
8. Eighth Principle; Social Proof (Social Impact)

Of the many principles outlined, the researchers then matched them with the facts found in the field regarding the treatment carried out by the Mesuji Regency Government towards residents whose land was affected by road construction. These facts are then analyzed as follows

3.2.1. The Use Of The Concession Principle In The Social Engineering Of Road Development By The Mesuji Regency Government

Hadnagy (2) defines concession as behavior that acknowledges or agrees after previously denying or resisting it (admit or agree that something is true after first denying or resisting it). The understanding differs from the notion of concession in toll road construction to the private sector where the developer is given the right by the government to manage the toll road after it is built. In the case of land acquisition for road construction in Mesuji district, the district government made efforts to approach residents who objected to road widening restoration with the intention of obtaining concessions from these residents on land affected by the development project. Formal and informal approaches through mass media and social media are intended to make

residents agree as if through their own consciousness to give the district government the right to cultivate the land they own.

So when referring to the concept of concessions carried out by Hadnagy (2) the Mesuji Regency Government carried out social engineering of residents who had resistance by turning the direction of submitting initial offers from conceptually high to low, they were almost completely ignored. Residents who do not want to be affected by road widening are abandoned and left alone so that inevitably they end up lowering their requests even voluntarily so that their land is affected by road construction. If described according to the concept of Hadnagy (2) is as follows:

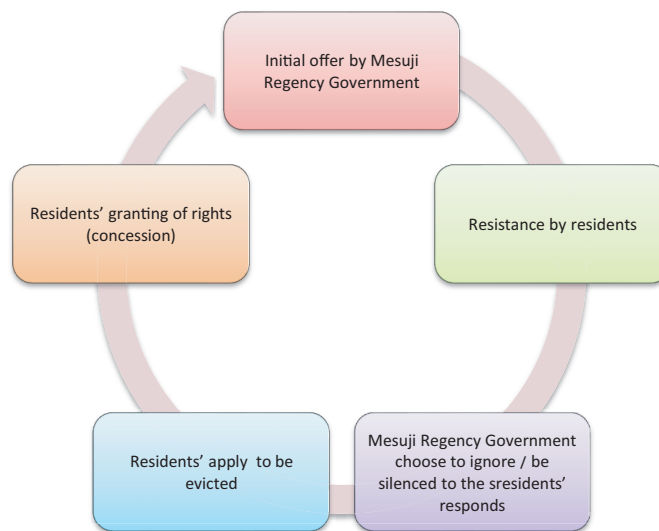


Figure 1: Mesuji Regency Government engineering concession process.

3.2.2. The Use Of The Authority Principle In Road Development Social Engineering By The Mesuji Regency Government

Hadnagy (2) said that the use of authority over the objects of social engineering can make them give trust to the perpetrators of engineering. In this case, the Mesuji Regency government is making serious efforts to reduce the apparatus and related services with the assistance of village government officials to take a formal approach such as through village meetings, recitations and family approaches by directly visiting the houses of residents whose land has been affected by road construction. This form of regional leadership makes residents who are visited and those who attend scheduled meetings believe in the ability of the district government to fulfill promises such as increasing land prices after road construction is completed or in realizing the concept of welfare that will be experienced by residents in the future. will come.

This emphasis on authority at first glance is similar to giving emphasis to the manipulative aspect, but in reality it is very different. Residents who voluntarily give their land without any strings attached already have an awareness of the importance of roads for their settlements or plantations, it's just that the initiation from the district government makes them want and believe that awareness comes from themselves, and something that comes from themselves makes them "sincere" and satisfied. This feeling of satisfaction fits the criteria of "mental reward for obedience" contained in the concept of authority proposed by the Hadnagy Diagram (2) as follows:

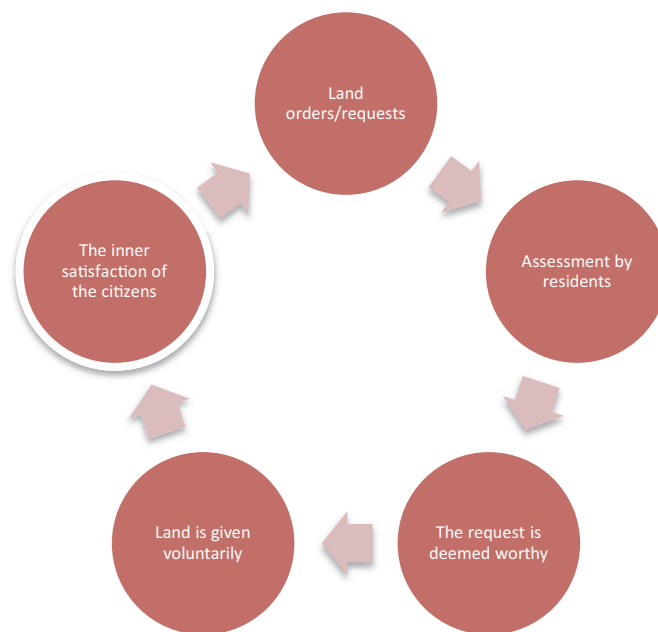


Figure 2: The Process Of Applying Authority By The Mesuji Regency Government.

3.2.3. The Use Of The Principle Of Social Proof In The Social Engineering Of Road Development By The Mesuji Regency Government

Literal meaning of social proof is social proof but after reading Hadnagy's explanation what (2011) is meant by this principle is the feeling that residents have when they know that many residents agree that their land is passed by the road. Uncertainly, there is a feeling of "following in" because many people agree with this development program. This phenomenon of citizen willingness can be said to have been born because of the impact of the application of social engineering that "the most votes" is the best choice. In approaching the residents, the Mesuji Regency government showed that many residents agreed so that it became the impression that everything had been agreed upon by the residents. Conformity also occurs when residents who were previously hesitant to

express their opinion then become convinced that their opinion is the same as the average citizen so that it is possible to avoid social conflict with other residents. The process of using the majority vote consensus is described according to Hadnagy's scheme (2) as follows:

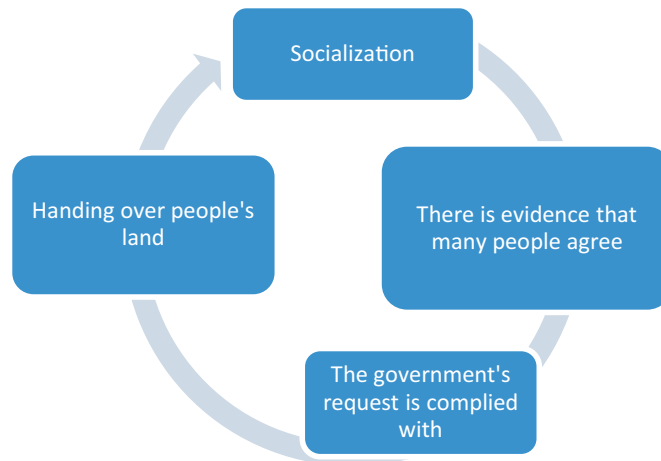


Figure 3: The process of realizing social impacts by the Mesuji Regency Government.

3.2.4. Seeing Through Hadnagy's Perspective : Social Engineering Through the Use of Manipulation in Mesuji Regency's Road Development

From the facts on the ground, it was found that there were several incidents where residents objected to the road construction program and demanded replacement, purchase, and even rejection for political reasons, which made the land acquisition process not run smoothly. The activities carried out as an effort to approach residents who objected were carried out by taking advantage of the vulnerability that existed in the inner atmosphere of the residents themselves. Hadnagy (2) sees that manipulative action is a social engineering effort as well, some of the principles that can be used in carrying out manipulation are:

1. Increased susceptibility
2. Environmental control
3. Forced re - evaluation
4. Removal of power / position
5. Social punishment
6. Intimidation

Of the six principles, the facts on the ground show that the Mesuji Regency Government has implemented the principle of increasing vulnerability by ignoring residents whose lands do not want to be expanded, the district government only builds on land that is no longer problematic. This makes residents who object to doubt their own opinion, are they taking the right steps? If the road is finished and the residents affected by the construction really feel the benefits, then they will be the group of people who are left behind. Economic motives are indeed a panacea to lure people to think twice about what they are going to do. By leading to the vulnerability of the economic condition of the residents, the Mesuji Regency Government has succeeded in manipulating residents to be willing to give up their land for road construction.

The process of resolving each citizen's objection is different so that the flow of the process cannot be described as the same as the flow of social engineering using influence, as stated above. The flow of social engineering using the manipulation approach carried out by the Mesuji Regency government towards residents who object to the road construction program can be outlined as follows:

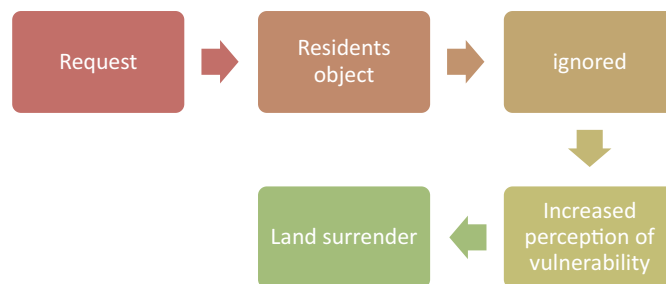


Figure 4: The Manipulation Process Against Residents Who Object To Road Development

4. Conclusion

From the results of the analysis based on facts in the field on the concept of social engineering initiated by Christopher Hadnagy (2), it can be concluded that the Mesuji Regency Government uses two approaches in carrying out social engineering, namely the influence approach and the manipulation approach to residents whose land is affected by the road construction program. The approach using influence is carried out by applying the principles of concession, authority, and social impact. While the manipulative approach is carried out using the principle of increased susceptibility.

References

- [1] Efendi K, Susantun I. Analisis Pertumbuhan dan Ketimpangan Antar Kabupaten/Kota di Provinsi Lampung (Tahun 2008-2011). Prosiding Seminar Nasional. 2014. <https://pak.uii.ac.id/wp-content/uploads/2020/10/2014-Nov.-Makalah-Sem.-Nas.-Pen.-Eko.-PPE-FE-Uii.Pdf>
- [2] Hadnagy C. Social engineering: the science of human hacking. John Wiley & Sons, Inc; 2011. p. 10475.
- [3] Metro LA, Metro AL. Analisis Kondisi Sosial Ekonomi dan Tingkat Pendidikan Masyarakat Desa Labuhan Mulya, Kecamatan Way Serdang, Kabupaten Mesuji. Social Pedagogy. J Soc Sci Edu. 2020;1(1).
- [4] Setiawan R. Partisipasi Publik Dalam Program Bantuan Listrik Pedesaan Masyarakat Kabupaten Mesuji. E-JKPP. 2017;3(3):82–92.
- [5] Shaleh MY. PERAN MODAL SOSIAL DAN PARTISIPASI DALAM PEMBERDAYAAN MASYARAKAT. UNM. 2020.
- [6] Sudjarwo Gs S, Hartoyo, Warsono, Mutolib A. Membangun desa: kasus di Kabupaten Mesuji, Provinsi Lampung. Graha Ilmu, diterbitkan atas kerjasama dengan Lembaga Penelitian dan ...2019.
- [7] Suhandi F. Peranan Dinas Pekerjaan Umum Kabupaten Mesuji dalam pembangunan infrastruktur jalan studi di Kecamatan Tanjung Raya. Skripsi; 2016.
- [8] Syukron B, Rusmadi R. Pili Pesenggiri as peace culture: A local wisdom based resolution of land conflicts in Mesuji, Lampung. Walisongo. Jurnal Penelitian Sosial Keagamaan. 2018;26(1):95–114.
- [9] Yulfriwini Y, Hasanah AN, Sadad I. Pengawasan Peningkatan Jalan Kabupaten Mesuji Provinsi Lampung. PENGABDIAN KEPADA MASYARAKAT; 2018.
- [10] Yulfriwini Y, Sadad I, Nurhasanah A, Juniardi J, Sugito S, Karim AI, et al. Peningkatan Infrastruktur Jalan Kabupaten Mesuji-Lampung. PENGABDIAN KEPADA MASYARAKAT; 2018.
- [11] Yuliani A. Evaluasi Pelabuhan Mesuji Untuk Masuk Dalam Trayek Tol Laut. Jurnal Penelitian Transportasi Laut. 2018;20(1):55–68.
- [12] Suraji S, Embi MA. MENETAS JALAN BARU PENGEMBANGAN MASYARAKAT: Sebuah Jawaban di Era Milenium. Jurnal Sosiologi Reflektif. 2018;12(2):353–366.