

Conference Paper

From Data to Policy: Database-Policy Making in the Case of Civil Service in Ngepung, Nganjuk

¹ P.F. Nuryananda *, ² B. Prabowo, ³ Suwandi

¹ Department of Communication, Faculty of Political and Social Sciences, Universitas Pembangunan Nasional "Veteran" Surabaya, East Java, Indonesia

² Department of Business Administration, Faculty of Agriculture, Universitas Pembangunan Nasional "Veteran" Surabaya, East Java, Indonesia

³ Department of Agrotechnology, Faculty of Agriculture, Universitas Pembangunan Nasional "Veteran" Surabaya, East Java, Indonesia

Abstract

Ngepung Village, Nganjuk District, is a village that is geographically located at the intersection of the Nganjuk, Jombang and Lamongan regions. Ngepung village has a dry type of soil because the village land is lime-mixed clay. This condition causes rainwater cannot be absorbed properly by the land of Ngepung Village. As a result, the village is experiencing drought and lack of water. With the background of the village conditions, the implementing team is engaged in activities to provide alternative solutions to help overcome village problems. However, in starting to provide alternative solutions, the implementing team used a quantitative approach, namely the use of a database on population and village potential. To get and use the database at the same time as the basis for providing alternative solutions, the community service team used the Village Build Index (Indeks Desa Membangun/IDM) questionnaire by the Ministry of Villages, Development of Disadvantaged Regions and Transmigration (Kementerian Desa, Pembangunan Daerah Tertinggal, dan Transmigrasi). With the use of IDM as an instrument of research as well as community service, the pattern of the life of the Ngepung Village community will be mapped. The mapping results by IDM can simultaneously help the village to complete village data so that the village also benefits administratively by the existence of this community service. The fact is that the people of Ngepung Village experienced several conditions, including 1) still dependent on forest products, 2) there were still many who did not have latrines, and 3) there were still many who did not use livestock manure.

Keywords: Alternative, database, mapping, village, water

INTRODUCTION

Ngepung Village is a national priority village in the Nganjuk Regency, East Java. This village has abundant natural resources, but the potential of natural resources in the village has not been utilized and managed properly. For example, the potential for forestries such as wood and dung. For wood itself, many are not optimized by the population. Even though the forest area or forest field in Ngepung Village is still very abundant. The results obtained from the forest also vary, such as wood, meeting plants, randu, and others. Actual forests can also function as rainwater collectors, so that when the dry season the water is still flowing.

* Corresponding author

Email address: firdaus.praja@gmail.com

As for the potential for gadung, villagers still have not exploited this potential because access to forest roads is still not possible and access to markets that are far and relatively difficult to reach. For information, according to the Ngepung Village and Village Profile Information System 2017 booklet, Ngepung village itself is approximately 15 km from the Lengkong sub-district office and is approximately 35 km from the center of Nganjuk district government.

Ngepung Village consists of three hamlets, namely Ngepung hamlet, Sendanggogor hamlet, and Jomblang village. Ngepung Hamlet is located under the hills, so to visit the Sendanggogor hamlet and Jomblang hamlet, it will first pass through the Ngepung hamlet. After Ngepung hamlet, it will enter Sendanggogor hamlet. Sendanggogor Hamlet itself is a hamlet with the most population at the same time the most densely populated. The Ngepung Village Hall is located in the Sendanggogor sub-village, and so is the only Ngepung One Roof Elementary School and Middle School which is also located in this hamlet. Meanwhile, Jomblang hamlet is located on the west side of Sendanggogor hamlet. In Jomblang hamlet there are still many residents who do not have a toilet/toilet. So that the habits of the residents there are still defecating in the forest area, without a fixed location.

According to Desa Ngepung's Village and Village Profile Information System 2017, there is 12 km of paved / concrete village roads. However, the figure is still part of the entire village road. Road access and transportation infrastructure are the main complaints of Ngepung residents as well as communities outside the Ngepung village. Several road improvements have been carried out, including asphalt and concrete. However, comprehensive development is still hampered by the ability of the central government to improve and land problems which are the geographical contours of Ngepung village. Part of the village road is then installed with paving stones to anticipate the ground motion in the Ngepung village. This is felt to be quite efficient rather than asphalt and concrete which require more repair funds.

In addition to problems in access and regional transportation infrastructure, Ngepung village also experienced drought and water shortages. Almost all residents also complained about water problems. For Ngepung villagers, the availability of water can only be felt during the day until the afternoon. During this period the water flowed from a water source within 1 km from the settlement to the reservoirs that had been provided by the village government. The pump of water used to distribute water is help from the government and uses renewable energy sources, namely using solar panel energy.

In addition to relying on solar panel energy pumps, villagers also built several water catchment areas. This water absorption helps the soil of lime and clay to absorb water directly. From the infiltration water, underground water extraction is carried out and collected in reservoirs in each of the residents' homes. But this is not so effective considering the water that is then sucked from the underground is cloudy. But again, if the village only relies on water from the source and then flows, it will not be enough to meet the needs of the village. Especially if the condition of the village is building, including the construction of roads.

METHODS

This community service takes the location of one of the national priority villages according to the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration and the Ministry of Research, Technology and Higher Education, namely Ngepung Village, Lengkong District, Nganjuk District. Permission for community service was carried out in a formal institutional collaboration between the Institute of Research and Community Service (LPPM) UPN "Veteran" East Java and the Nganjuk Regency government.

In accordance with the title carried, the main purpose of this community service activity is to map the potential of the village based on local wisdom, especially with what is owned and done by the people of Ngepung Village. This community service activity was later formed in the concept of Thematic Real Work Lecture (KKN) by UPN "Veteran" East Java with a total of 28 students from various scientific majors. To get data related to village potential based on local wisdom, KKN participants conducted surveys and observations (Pujihastuti, 2010). The survey was carried out by 28 students of KKN participants to nearly 450 households (KK). Questionnaires used as survey

instruments used the Village Development Index (IDM) guidelines by the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration. While observations were made by KKN participants around the Sendanggogor hamlet which is the center of the Ngepung Village activities, where water assistance was lowered from the district government, and the largest water catchment site.

The activity was opened with the introduction of the community service participants to the representatives of Ngepung Village residents accompanied by the field lecturer. The purpose of the introduction activity was to bring the community service participants closer together as well as the community service activities themselves to the people of Ngepung Village. The activity participants also conducted counseling from the three divisions of the activity group, namely the health, education, and technology divisions, the agriculture division, and the production division. As for the closing of this activity, the participants consulted with local residents. The results of the consultation were embodied in the closing ceremony of community service activities in front of the house of the Head of the Ngepung Village. At the end of the activity, the participants reported the results of the data collection on Ngepung Village residents and the activities of each division that had been carried out in Ngepung Village.

RESULT AND DISCUSSION

The service team has been divided into three divisions, namely 1) Education, Health and Technology Division, 2) Production Division, and 3) Agriculture Division. A number of problems found in Ngepung village, Lengkong Subdistrict, Nganjuk District can be known after the community service program. There are eight village problems that have been summarized by the community service team, namely:

1. Drought and scarce water availability. Water is only channeled during the day to evening through solar panel energy pumps.
2. Access and transportation infrastructure that still needs a lot of improvement. Many roads are still in the condition of *macadam* and clay.
3. Forest products in the form of wood are actually used illegally by residents of other villages so that the villagers of Ngepung do not feel much benefit from it other than the deforestation surrounding the settlement. In addition, there are still gadung, randu / kapok, and yellow meeting which are still not widely used by residents.
4. Agricultural/plantation products in the form of corn, tobacco, and Lombok are still not well optimized.
5. Social institutions such as schools already exist, but the school lacks teaching staff and education / administrative personnel. So that schools are often closed only because there are administrative matters that must be completed or students who are left without the teaching and learning process.
6. Village economic-social institutions that are still minimal. It is noted that Ngepung village only has one village-owned enterprise (BUMDes) which is savings and loan. Village Karang Taruna also only has four to five administrators. These two things at least illustrate the participation and anticipation of the Ngepung village community towards village infrastructure.
7. The last thing that became one of the obstacles to progress was internet access that was very minimal.
8. The majority of Ngepung villagers still rely on processed products from the forest, in the form of wood and agricultural crops that can adapt to the conditions of the land in the village. Ngepung Village still does not have superior commodities to be marketed.

The narratives of the findings of each division are as follows:

1. *Division of Education, Health, and Technology.* The economic and social life of the Sendanggogor hamlet community in Ngepung village can be said to be less advanced, the livelihood of most of its citizens is farm laborers. The majority of the Ngepung villagers are Muslims, this can be proven by the number of mosques in each hamlet. In terms of the education level, the Sendanggogor hamlet community is also classified as less

advanced, this can be seen from the level of education of the people who mostly only feel elementary school education. Teaching and learning activities are the most basic activities in the whole process of education in schools. The success of education is largely determined by the performance of the teaching and learning process. The teaching and learning process is a series of communication activities between humans, namely between people who are learning to be called students and those who teach are called teachers. In the teaching and learning process, the teacher will face students who have different characteristics, so that the teacher in the teaching and learning process will not be separated from the problem of student learning outcomes, which is a tool to measure the extent to which students master the material that has been taught. Mastery of the material can be seen from the extent to which students receive lessons and how far the absorption and ability of students to understand the subject matter. Several factors influence the mastery of students' concepts, including subject matter, learning objectives, teaching models, facilities and infrastructure. One way to improve students' mastery of concepts is to apply the right teaching model, because the teaching model is an important part of the teaching and learning process and the abilities expected by students will be determined by the use of the right model, in accordance with the standard of success specified in the destination.

2. *Production Division.* The produce in Ngepung Village is quite abundant and diverse. Knowledge in processing agricultural products is quite fulfilling, but there are still some aspects that must be developed again such as the ability of human resources to use technology/farming tools and distribution. Ngepung Village, Lengkong Subdistrict, Nganjuk District is a dry and difficult land but thanks to the efforts of the residents now they can enjoy the harvest. The main livelihoods of the villagers are as farmers and livestock. Some educational facilities, worship services, and bathrooms are available but still inadequate. Road and lighting infrastructure is still very lacking and the road to Ngepung village is still very lacking. Meanwhile, cassava is an energy source that is rich in carbohydrates and has calorie, protein, fat, charcoal, calcium, phosphorus, iron, vitamin B and C, and starch content. Cassava leaves themselves contain vitamins A, B1, and C, calcium, calories, phosphorus, protein, fat, charcoal hydrates, and iron. While the bark contains tannin, peroxidase enzymes, glycosides, and calcium oxalate. The selling price of cassava is relatively cheap Rp. 3000, - up to Rp. 4000. When viewed from this low price, cassava can be a potential in developing processing activities into a variety of products. According to data from the Indonesian Agriculture Agency (2015), cassava production in Indonesia reaches 21.8 million tons per year. This huge production is not followed by good consumption and processing from the community. Therefore it is necessary to have cassava processing with the addition of other ingredients that have high economic value. The development of cassava-based products will add to the economic value of cassava. In addition, the processing of cassava is to increase income from the agricultural (plantation) sector. Cassava can be processed in various ways and various kinds of dishes. Nugget is one of the foods favored by almost all groups of people, so this nugget has a pretty good prospect for the future. Cassava processing to be used as raw material for making nuggets aims to increase the selling price of cassava in Indonesia as well as to utilize cassava itself to prevent consumer saturation of processed foods made from cassava. While superior products in the form of cassava nuggets can be developed with various innovations that can utilize and increase the selling value of cassava plants. In the development of cassava nugget products can be done in various ways, among others, namely, the taste that is typical of the taste of cassava itself can increase nutritional value and attractive packaging at an affordable price. In the manufacture of cassava, nuggets do not use preservatives, other than that raw materials are cheap and easy to obtain. This cassava Nugget is intended for all people, besides that, it can be used as a business field for housewives so that it can improve the economy of the people in the Ngepung village. Processing cassava into nuggets is a new innovation. These cassava nuggets are easy to make so that they can be used as a business that can be developed by several communities. Cassava plants in Ngepung village are not included as main commodities but commodities that are only used as hedges so that cassava plants in

Ngepung village are only used as dried cassava, gethuk and only boiled. The production division views cassava plants as plants that can be used as the basic material for making new superior products in Ngepung Village. In the future, it is expected that this superior product when produced on a large scale and sold can bring up business opportunities (home industry) that can improve the economy of the Ngepung village community.

3. *Agriculture Division.* Organic fertilizers have the ease of obtaining these fertilizers compared to chemical fertilizers. Organic fertilizers can be obtained easily from the surrounding environment. Ngepung Village itself has great potential in terms of the source of materials for making organic fertilizer. The people of Ngepung are mostly cattle breeders, either cattle or goats. Cow and goat livestock activities carried out by the community will surely produce animal feces/feces that can be used as organic fertilizer. The abundant potential of fertilizer resources in Ngepung village itself has not been fully explored and utilized. Therefore, we raised an idea to empower the potential of abundant fertilizer resources so that it can be processed into organic fertilizer that can be utilized by the community. The superior product in the form of liquid organic fertilizer can be developed with various innovations that can increase the sale value of a household waste that is easily obtained such as rice washing water. In the development of liquid organic fertilizer, this can be done in various ways, including attractive packaging and affordable prices. This liquid organic fertilizer is aimed at farmers who want to develop their agriculture even better but at an affordable price, because often farmers use chemical fertilizers which, besides being not good for agriculture in the future, also cost more than organic fertilizer. Liquid organic fertilizer is easy to make so that it can be used as a business that can be developed by various communities because the material obtained is easy and also cheap, besides that most of the people of Ngepung Village are farmers, so fertilizer is one of the things that people need the majority of farmers. If previously most people only used chemical fertilizers and organic fertilizers from cow manure that were immediately applied without processing, then by making liquid organic fertilizers from waste rice washing water would add plants to be healthier. The content of liquid organic fertilizers in rice waste will make the plants become greener, healthier, and produce many tillers. Liquid organic fertilizer from rice washing waste contains protein and nutrient compounds from the results of decomposition of EM 4 bacteria which can add organic compounds to plants. Making POC from leri water does not require large capital because the materials can be obtained easily and cheaply especially among mothers. A healthy environment is everyone's hope. However, this is difficult to realize because there are still many people who are less concerned and responsible for the surrounding environment. Finally, the environment is damaged. Most of the water is polluted, the air is dirty, and floods occur every year in Jakarta. Seeing the damage to the environment, the people of Jakarta need to plant trees. This tree planting is important to be carried out as an effort to improve the environment. Priority villages such as Ngepung village, Kec. Lengkong Kab. Nganjuk has serious problems with water and the environment. Planting and maintaining trees is a shared responsibility. The community must begin to realize and feel the benefits of a healthy environment. Every person in mutual cooperation takes care of their environment, so that the physical environment, including roads, alleys, houses, and infrastructure are kept clean and tidy. A clean environment will be free from disease, the air becomes fresh and clean, etc. From some of the findings of each division, the community service team found one of the shortcomings of Ngepung village is the lack of a database of people's social-economic life (The William T Grant Foundation, 2016). Therefore, the dedication team believes that future village policies must be based on numerical data as a guide in policy making (Poel et al, 2015). After a survey of the economic-social data collection of Ngepung villagers as well as data processing, the following is the result of Ngepung village's social economic data processing in accordance with the Village Development Index (IDM) (Ministry of Rural Development of Disadvantaged Regions and Transmigration of the Republic of Indonesia, 2015).

CONCLUSION

Ngepung Village, Lengkon District, Nganjuk District is a village located in a mountainous area. With curved and winding topography, and has clay and limestone rocks, Ngepung village can rarely absorb rainwater into the soil. Therefore, drought conditions in Ngepung village are a common condition in the dry season. Assistance from the Nganjuk Regency government comes every two days in the form of water delivered by three water tank trucks. Ngepung Village has several water reservoirs which are placed at the points of village water reception. In addition, the village of Ngepung also still relies on infiltration sources flowed from the forest. This community service program is only trying to understand the natural problems experienced by the Ngepung village community.

Using the formal institutional and socio-cultural approach of the Ngepung village community, the KKN program this time managed to collect numerical data on the population and potential of the Ngepung village consisting of three hamlets, namely Ngepung, Sendanggor, and Jomblang hamlets. This numerical data was taken based on the Village Development Index (IDM) officially issued by the Ministry of Villages, Development of Disadvantaged Regions and Transmigration (Ministry of Villages for the Development of Disadvantaged Regions and Transmigration of the Republic of Indonesia, 2015). The survey conducted by community service participants used in-depth interview methods, so the data included in the IDM questionnaire was valid and actual data. These numerical data can then be used as administrative instruments, as well as instruments for village community development policy.

In this community service program, program participants found that the main livelihoods of Ngepung villagers were farmers and farm laborers. In addition, for the main commodity or superior local potential Ngepung village consists of corn, gadung, and cassava, while rice is planted in the rainy season. Ngepung villagers also have much livestock which are their own ownership, ownership of others, and assistance from the local or central government. Therefore, the KKN program participants conducted training on the socialization of superior products in the form of making cassava nuggets, making manure, and replanting (reforestation).

ACKNOWLEDGEMENT

The authors say many thanks to the Universitas Pembangunan Nasional “Veteran” Surabaya, East Java, Indonesia that support the implementation of this research so that can be completed properly.

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