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**ANALYSIS OF PROBLEMS AND POTENTIAL BASED ON VILLAGE
DEVELOPMENT INDEX IN THE ISLAND VILLAGES OF SUMENEP REGENCY:
A STUDY IN PAJENANGGER, TORJEK AND PALIAT VILLAGES**

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ABSTRACT

This study aims to describe village conditions based on Village Development Index (VDI) as regulated by the Regulation of the Ministry of Village Number 2 of 2016. The research was qualitative under the approach of Community Based Research. Data collection process was done by using the VDI variables and indicators. Research took place in three island villages of Sumenep Regency, i.e. in Pajenangger, Paliat, and Torjek. The results showed that Pajenangger and Paliat belong to the disadvantaged criterion; they both show a low welfare and competitiveness level. These island villages are very far away from Sumenep as the town center. The economy is not growing well due to the limited market access as well as human resources and facilities supporting trade infrastructure. The potential is the well-maintained environment and natural potential.

KEY WORDS

Village development index, disadvantaged village, development, potential.

Village Development Index (VDI) was developed to strengthen efforts to achieve the goals of village and rural development as defined in the National Medium-Term Development Plan. In addition, it also supports the instrument i.e. the Act Number 6 of 2014 about villages as a legal instrument to achieve community welfare and village independence. A village, in this sense refers to “*desa*” and “*desa adat*”, hereinafter referred to as a village, is a legal community that has territorial boundaries to administer government affairs as well as interests of local communities based on community initiatives, origins, rights and/or traditional rights. The community is recognized and respected in the system of the government of the Republic of Indonesia (the Act of the Village, 2014).

The explanation provides a clear understanding of village, principles, and objectives of village development that prioritizes village positions with their authority based on the existing regulations. Of the four (4) village authorities, two are the main authorities, which are based on the right of origin and on the local authority of the village. These two authorities become an important force for villages to mobilize their development and improvement of the quality of life, as well as the welfare of the village community. The study was conducted in the island villages of Sumenep Regency, considering that those villages belong to the category of very disadvantaged.

In general, the island villages in the Sumenep Regency belong to the disadvantaged and very disadvantaged ones. As many as 85 villages from 332 villages in Sumenep Regency are island villages, spread on 48 islands in 10 districts. This condition is a special concern for the local government in managing development and allocating development budget.

Awareness on the development gap between the mainland and island areas in Sumenep Regency has only been detected in the regional long term and medium term development plans in the Reform Era. In the New Order Era, the reports on the development gap were not found explicitly either in priority programs and development activities; and this indicate the need for affirmation programs for the island areas. It has also been possible that the democratic system of the New Order Era was very repressive. In the Reform Era, the quality of public services has come to question and the demands of the island area development have emerged.

Therefore, with the regional autonomy, the local government of Sumenep shows the policy alignment through the development of priority programs in each of its medium term development plans. The mission and objectives in the medium term development plans imply a major problem in the distribution of development in Sumenep Regency. The development has not been optimal; this may be due to limited budget—a general problem of governance in Indonesia - as well as the capacity of local governments, and the limited ability to reach the furthest area of the region.

Development of the village potential will be carried out on the Kangean and Sapeken Islands as the two islands are the largest in Sumenep. The two areas also possess the most numbers of disadvantaged villages (7 out of 15 villages). From the seven (7) villages, six (6) are very disadvantaged and one (1) is disadvantaged. Most of the villages are located in Sapeken District.

From the number, only 3 (three) villages were chosen as the study sites; each represents the district, namely Pajenangger in Arjasa District, Torjek in Kangean District, and Paliat in Sapeken District. Pajenangger is a coastal village having the largest coastal area in Arjasa District. Torjek has flat and coastal areas or beaches. Paliat is a one-island village. The mapping of village potentials is based on the variables that become explanatory aspects, i.e. social resilience, economic resilience, and environmental poverty. These variables are adopted from the variables in the Village Development Index (VDI); through the categorization and territorial characteristic, the selected village can become a representative of other villages in each of the three districts.

LITERATURE REVIEW

According to the Act Number 6 of 2014 about villages, a village, in this sense refers to “*desa*” and “*desa adat*”, hereinafter referred to as a village, is a legal community that has territorial boundaries to administer government affairs as well as interests of local communities based on community initiatives, origins, rights and/or traditional rights. The community is recognized and respected in the system of the government of the Republic of Indonesia (the Act of the Village, 2014). As a representative of the country, the village is obliged to carry out the development, both physical development and human resources development, as an effort to improve the quality of life for the welfare of the village community. Sustainable village development is a village development that does not damage the environment and gives the sovereign right to govern itself (Susetian, 2011).

Village Development. According to Siagian (2005: 4), development is an activity or a series of growths and changes planned and done consciously by a nation, state, and government towards modernity in the framework of nation building. In essence, development is a deliberate activity between the government and involve the participation of the community toward modernity with a clear direction and planning.

Development of the Village Community. According to Indratno (2006:31), approach to rural development should be viewed from two sides. First, it deals with the development of the human (people-centered development). Second, it is a physical development (production-centered development). In other words, development must include the physical development, indicated by an increase in economic growth, and human resource development, indicated as improving health and education.

Village Development Index. The Regulation of the Ministry of Village Number 2 of 2016 provides a framework for village development objectives as in the document of the National Medium-Term Development Plan 2015 -2019. The preparation of the Village Development Index is intended to provide a measure of village positions and status as well as the direction of village progresses and independence. Village Development Index functions, among others, (a) to be an instrument in placing the status and position of a village and in assessing the level of progress and independence of a village; (b) to formulate village-based target sites, and (c) to be an instrument in coordination with K/L, local government and village, and other institutions. Through the Village Development Index, the progress and independence of a village is reflected with the status of independent (*sembada*), developed (*pre-sembed*),

developing (*madya*), disadvantaged (*pre-madya*), and very disadvantaged (*pratama*). This classification is needed to accommodate the diversity and depth of issue faced by each village. As we know, village issues have so far been a complex one. The challenge is to represent that complexity into a status, so the formulation of issues and targeting (focus and locus) is focused and centered. Another reason is to avoid moral hazard in achieving the target of village development goals so as not to repeat the biased development practices, which may harm the village life.

METHODS OF RESEARCH

Approach. This study is a data collection for mapping of village potential. According to Nawawi and Hadari (1995), field research is an intensive and detailed research on a desired object by studying various data amplifier or supporting a case. Singarimbun (1995) explains that field research is intended for a fact finding in the field, using a description for a careful measurement of a particular social phenomenon.

Study Site. This study was conducted by direct observations into three villages that become the sample, i.e. Pajenangger, Torjek, and Paliat. This study used a descriptive analysis. Descriptive statistics only deal with the matter of deciphering or providing information about a data or a state. Descriptive statistics function to explain the situation, symptoms, and problems, while the conclusions in the descriptive statistics are shown only in the existing data set (Hasan, 2001).

Focus. The scope of data collection activities in this study includes three (3) main components. First is identification and analysis of the existing condition of the village. The information collected includes pictures of physical conditions, socio-economic conditions, monograph, development of economic sector, and infrastructure (accessibility). Second is identification of village potential. These components include regional conditions, development trends, economic potentials capable of supporting rural development, the leading commodity sectors, and constraints in the development of economic potential, in terms of both infrastructure and finance and policy.

Data Types. Types of data used in this study were secondary data and primary data. Secondary data is data that has been collected by other parties, such as demographic data, village areas, topography, and monograph. Primary data refers to the data obtained directly from the object of research including data used to measure the Village Development Index (IDM), which consists of social, economic, and environmental dimensions and accessibility of the region.

Data Collection Technique. Data collection techniques used in this study included (1) interviews, a direct communication with informants, (2) documentation, which is secondary data collection from respondents, economic and social institutions, as well as related institutions, (3) observations, a direct observation of the observed object, listening and recording the field findings, and (4) Focus Group Discussion (FGD), to discuss issues studied. Triangulation and direct confirmation between informants about the data and information obtained by the researcher is expected to occur, for the reliability of the data.

Data Analysis. Data analysis in this study used the method by Miles, Huberman, and Saldana (2014: 31) consisting of four steps as shown from Figure 1.

Figure 1 – Interaction Model of Data Analysis (Source: Miles, Huberman, and Saldana, 2014)

RESULTS AND DISCUSSION

General Overview of Pajenangger. Pajenangger is a village located at the southern end of Arjasa District, precisely in Kangean Island. The location of Pajenangger village is strategic when reached through the waterways making the village quite populous. The total population reached approximately 10,000 people with 243.9 households. Geographically, the village is bordered by Gelaman Village in the north and is surrounded by sea in the south, east, and west. Being in the southern region of Arjasa District, Pajenangger is approximately 22 km from Arjasa Village, which is the capital city of District. Pajenangger is approximately 200 km from Sumenep Regency. To reach Sumenep from Pajenangger, we can only travel by sea or air.

Based on the typology of the area, Pajenangger is a village whose area is mostly paddy fields. Most of the people also raise livestock. They also involve in fisheries both capture and cultivation. Surrounded by the sea, the village is blessed with abundant fish resource. In addition to capture fisheries, in some areas of Pajenangger, the soil is muddy at some point during the rainy season forming a natural pond for fish cultivations. The people usually cultivate shrimp and milkfish during the rainy season.

General Overview of Paliat. Paliat Village is located in Sapeken District in Sumenep Regency. The total area of Paliat Village is 46 km or 23.19% of the whole area of Sapeken District. Total land area of village is 2 Ha. The population is 2,465 people, consisting of 950 households - as many as 312 people are the poor.

The people are mostly fishermen as the village is surrounded by sea. The village belongs to *swadaya* category as it is still bound by tradition because the education fee is still relatively low, production is directed to the primary needs of the family, and communication is very limited. The livelihood of the population in the primary sector is agriculture, livestock, fishermen, and from the forest.

General Overview of Torjek. Torjek is one of the villages in Kangayan District. The village has a total area of 54 km. Most of the area is in the form of rice fields, cultivation, plantation, and sea. Therefore, most of the inhabitants live as farmers and fishermen. The north coast and the south coast border the village. The west part is bordered by Jukong-Jukong Village, and the east is bordered by Kangayan Village. This village is approximately 5 km from Kangayan. The total population is 3,706 inhabitants, with 1,798 male and 1,908 female.

Village Development Index of Pajenangger. VDI focuses more on efforts to strengthen village autonomy by building three dimensions, i.e. Social, Economic Resilience, and Environmental Dimension. The three dimensions are broken into variables, indicators, and items with a total of 52 items. VDI scores are interpreted in five (5) scales, with the status of very disadvantaged, disadvantaged, developing, developed, and independent.

Figure 2 – Village Development Index of Pajenangger

As seen in Figure 2, the VDI score of Pajenangger Village, reached 0.57, belong to disadvantaged category. The Social Dimension Index was 0.69 and this means that the status of social development of Pajenangger is developing. Furthermore, the Environmental Dimension Index was 0.63 and this means that the status of environmental development of Pajenangger is developing. The Economic Dimension Index was 0.40 and this means that the status of economic development of Pajenangger is very disadvantaged.

Referring to the three (3) dimensions of VDI, there is an imbalance score for Pajenangger. Social and environmental development in Pajenangger Village is in developing status, but the economic development is very disadvantaged. There is a need to conduct a deeper analysis on the aspects of each dimension to help improve the status of the village from disadvantaged to developing. A deeper analysis of each dimension can be explained as follows.

The Social Dimension Index for Pajenangger is 0.69 (developing). Conceptually, Social Dimension is formed by four (4) variables covering Health, Education, Social Capital, and Settlement. Here is an index of variables forming the Social Dimension of Pajenangger Village.

Figure 3 – Social Dimension of Pajenangger Village

Figure 3 shows the Social Dimension Index which reached 0.69 is formed by four (4) variables. Achievement Index of each variable includes Health Variable Index reached 0.68 (developing). The findings in the field from the results of observations and interviews showed that it is easy for the people to get access to health facilities. The distance from the settlement with the nearest health centers and midwives is only 15 minutes with good roads.

The second dimension is the Economic Dimension, which aims to describe the condition economic development based on the potential and accessibility to economic resources. Economic Dimension only has one (1) variable that is economic resilience. Figure 2 shows that the Economic Dimension Index score reached 0.4 (very disadvantaged). This achievement certainly illustrates that Pajenangger Village community access to economic resources is very low.

The economic resilience variable is made up of six (6) indicators covering production diversity, availability of trade service centers, access to logistic distribution, access to financial and credit institutions, economic institutions, and regional openness. In general, when referring to the quantity of village production diversity, Pajenangger Village has a variety of potential to utilize. However, the quality of production so far is still very dependent on nature. For example, for the agricultural sector, the farm areas cannot be planted all around the year. The cultivation season is heavily influenced by the rainy season because the water for irrigation is highly dependent on rainfall. During the dry season, rain intensity is very low, making poor irrigation.

Not only the agricultural sector but also the aquaculture fishery is highly dependent on the season. *Tambak* or the fishpond sector is highly dependent on the rainy season because during the prolonged drought the ponds will dry up. The next indicator is the availability of a trade service center in the village earning a score of 0.20 (very disadvantaged). The village has so much potential both agriculture, aquaculture, and capture fisheries, but it has no village market. Access to financial institutions and creditors scored 0.27 (very disadvantaged). The result of observations and interviews showed that the village has no financial institutions. Access to banking is only in the capital city of the district, which is approximately 22 km from the village.

The final dimension is the Environmental Dimension, which represents the environmental quality in the village. The Environmental Dimension Index is influenced by two forming indicators namely environmental quality and disaster prone. The following is the achievement of the Environmental Dimension Index and its constituent indicators.

The first indicator is disaster prone that describes the possibility of the disaster to occur along with the efforts of the community to anticipate the potential of the disaster. Pajenangger Village obtained a score of 0.60 (in a developing village). The record shows that the potential disasters in Pajenangger Village are the flood and strong winds. Floods occur during the rainy season due to poor irrigation, while strong winds are a season-specific disaster, especially in the middle until the end of the year.

The last indicator is the environmental quality. Pajenangger Village has an environmental quality indicator of 0.70. Pollution occurs in coastal areas and illegal sand mining is certainly destructive. Floods have high possibility to happen during the tidal time and abrasion by seawater. The village government has started efforts to reduce the problems. Here is a picture of the beach where sand mining takes place.

Village Development Index of Paliat

VDI focuses more on efforts to strengthen village autonomy by building three dimensions, i.e. Social, Economic Resilience, and Environmental Dimension. The three dimensions are broken into variables, indicators, and items with a total of 52 items. VDI scores are interpreted in five (5) scales, with the status of very disadvantaged, disadvantaged, developing, developed, and independent.

Figure 4 – Village Development Index of Paliat

As seen in Figure 4, the VDI score of Paliat Village, reached 0.4807, belong to very disadvantaged category. The Social Dimension Index was 0.46 and this means that the status of social development of Paliat is developing. Furthermore, the Environmental Dimension Index was 0.70 and this means that the status of environmental development of Paliat is developing. The Economic Dimension Index was 0.28 and this means that the status of economic development of Paliat is very disadvantaged.

Referring to the three (3) dimensions of VDI, there is an imbalance score for Paliat. Social and environmental development in Paliat Village is in developing status, but the economic development is very disadvantaged. There is a need to conduct a deeper analysis

on the aspects of each dimension to help improve the status of the village from disadvantaged to developing. A deeper analysis of each dimension can be explained as follows.

Conceptually, Social Dimension is formed by four (4) variables covering Health, Education, Social Capital, and Settlement. Here is an index of variables forming the Social Dimension of Paliat Village.

Figure 4 shows the Social Dimension Index which reached 0.32 is formed by four (4) variables. The health variables include health services, community empowerment, and health insurance. The index of each variable belongs to the category of very disadvantaged. This is due to distance of health centers, which are very far. To get to health centers, rural community needs to go to other islands by boat with an average travel time of 30 minutes. If the patients need a care in a hospital, they will have to be transferred to Sumenep with a travel time of at least 12 hours.

Figure 5 – Social Dimension of Paliat Village

The educational variable in Paliat Village scored 0.26 (disadvantaged). The indicators of educational variable include access to primary and secondary education, access to non-formal education, and access to knowledge. From the overall indicators, the score shows a very disadvantaged category. Education in Paliat is minimal, especially access to secondary education.

The settlement variable in Paliat Village scored 0.38 (very disadvantaged). The indicators include access to clean water and drinking water, access to sanitation, access to electricity as well as access to information and communication. Two indicators, clean water and drinking water, are good and access to electricity is categorized as developing. Meanwhile, access to sanitation and access to information and communications is very disadvantaged.

The Economic Dimension describes the economy of society and it scored only 0.28 (very disadvantaged). The Economic Dimension of Paliat shows the lowest given the weak economic resilience. The diversity of production is classified as independent (score 1) as people work only in the primary sector such as agriculture, fishermen, and breeders. However, the community has not managed the potential optimally—they do not focus on product development due to limited skills and knowledge.

The availability of trade service centers scored 0.20 (very disadvantaged). There is no village market so buying and selling is done in Sapeken. People have to use the boat, making economic delays in Paliat. In addition, economic delays also happen related to access to logistics distribution and access to financial institutions (score only 0.20). The deprivation of economic access is because there are no banks, cooperatives or financial institutions in Paliat Village.

In the Environmental Dimension describes environmental quality and potential of natural disasters. The results show that the environment is self-sustaining and developing. Ecological variables in Paliat scored 0.70, meaning that the village is self-reliant in ecology. Indicators in ecological variables include environmental quality and disaster prone. The environmental quality score is 0.90 (independent) and the disaster-prone score is 0.60. The ecological condition of Paliat Village tends to be very good - the village is very natural without the existence of factory waste and it has large forest area. The ever-recorded disasters in Paliat Village are strong winds and abrasion.

Village Development Index of Torjek. VDI focuses more on efforts to strengthen village autonomy by building three dimensions, i.e. Social, Economic Resilience, and Environmental Dimension. The three dimensions are broken into variables, indicators, and items with a total of 52 items. VDI scores are interpreted in five (5) scales, with the status of very disadvantaged, disadvantaged, developing, developed, and independent.

Figure 6 – Village Development Index of Torjek

Figure 6 shows the three dimensions on the Village Development Index for Torjek Village. The Social Dimension scored 0.57, which means developing, the Ecological Dimension scored 0.76, which means developing, while on the Economic Dimension scored 0.33, which means very disadvantaged.

Figure 7 – Social Dimension of Torjek

Health variables in Torjek scored 0.5. Torjek has inadequate health service units, seen from the elements of infrastructure and medical personnel availability and quality. Torjek is a relatively developed village in the district as the community life shows better progresses compared to the surrounding villages. It has one public health center. Other health facilities,

such as hospitals and maternity hospitals, are not yet available in the village. The center health care is 5 km away or 20 km away in Arjasa District.

Educational variables scored 0.49 or very disadvantaged. The nearest education facility is approximately 5 km. while for high school is not yet available in this village. Meanwhile, access to non-formal education and other sources of knowledge is not available.

Social capital tends to be good, showing the highest score in Social Dimension (0.71). Community tolerance is good. Based on information from interviews with the village head, the level of dispute among the villagers is very low. The tribes in Torjek are varied, among others 70% Kangean, 20% Javanese, and 10% Bajo tribe. The people use Javanese, Kangean, and Madurese as well as Indonesian to communicate. The low level of conflict is also followed by the low level of crime that the villagers have not yet felt the urgency to establish a village security system. The excellent social capital in the village of Torjek is a mindset that emphasizes shame, so there are no beggars in the village. The community thinks that it is better to go to other regions or abroad to look for livelihood than to beg.

Most of the villagers in Torjek Village have a good source of clean water. This is evident from the number of clean water facilities owned by the majority of the local population and 40% of Torjek villagers have access to latrines—most of the people use an area in their fields to build toilets. The villagers also use their own yards or fields to manage their garbage—this means that there is no facility for a final dump in the village. When it comes to electricity, the people use their own source of energy, not from the state-owned facility.

The Economic Dimension scored 0.33 (very disadvantaged). The villagers already have a variety of economic activities. It can even be said that the villagers of Torjek have a diversity of production. The production diversity includes fields, gardens, and paddy fields covering an area of 403.12 Ha, community forest of 20.14 Ha, and fish ponds of 0.08 ha. In addition, the villagers have a variety of breeding, including beef cattle (621), horses (15), buffaloes (101), goats (34), chicken (430). The livelihood of Desa Torjek is on the primary sector such as agriculture, fisheries, and livestock.

When it comes to community trade centers, the community has to go to the district center. In the village, stores owned and managed by residents only provide daily necessities, as many as 208 stores. There are also no logistics services such as a post office and goods deposit services. These services must be accessed to other districts, which are about 40 km. There are also no financial and economic institutions; this is because Kangayan District was once part of Arjasa District (the parent district), so all banking, and postal services still follow the parent district.

Torjek is located along the main road connecting Arjasa District with Kangayan District; thus, the people have quite good access. The village can also be accessed by sea—although there is only a traditional harbor and people only use traditional boats as well. The most widely used means of transportation are motorcycles; there are 94 (ninety-four) motorcycles. Other modes of transportation such as trucks, pickups, and mini buses are not widely used. The public transportation only operates on the market day to transport goods or help traders to go to the market. There are 179 bicycles in the village, seven (7) traditional boats, and ten (10) modern boats.

The Village Development Index scored 0.766 (advanced). The natural disasters come in the forms of abrasion in coastal areas, landslides, and floods in the central or hilly areas. Flooding occurs because the hill is quite steep and too close to the beach, so rainwater from the top of the hill flows to the relatively lower village area, especially the coastal areas. The people have built waterways yet during heavy rains water could not be accommodated that floods still happen. The community wishes to have a dam so the water can be kept to be used during the dry season. Abrasion occurs because the north coast of Torjek Village directly faces the Java Sea. The coastal areas have no mangrove forest to protect it from the high waves.

Then, the second indicator is the environmental quality in the village. The air temperature is relatively cool despite being on the coastal area—this means the air is in good condition. The village is partially coinciding with protected forest areas and production forest owned by Indonesian State Forest Company, which contributes to maintaining the

environment from pollution, especially air pollution. Waste is also not a problem as the waste produced is only household waste, which is managed independently by each household.

CONCLUSION

Referring to the three dimensions of VDI, there is an imbalance score for Pajenangger. Social and environmental development in Pajenangger Village is in developing status, but the economic development is very disadvantaged. The case is the same for Paliat. Torjek shows a developing category for Social Dimension and even a developed category for Environmental Dimension; yet, once again, the Economic Dimension is the same as the two villages, very disadvantaged. Thus, it can be said that the biggest weakness of the island villages of Sumenep Regency is the economy.

It is necessary for the local government of Sumenep to pay more attention to economic development due to limited access to services and limited human resources (in skills and knowledge). Economic development needs government intervention to optimize the potential of natural resources in the islands village. In fact, these island villages have a vast landscape with wealthy natural resources.

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