

The Relationship of the Jatigede Dam Construction towards Socio-Economic Conditions on Farming Community in the District of Jatigede-Sumedang

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Abstract -- This research is motivated by the construction of dam in the district of Jatigede which led to the loss of agricultural land and housing so that the farming community must find a new job. The problem of this study is how the relationship between the construction of dam with the socio-economic conditions of the farmers in the Jatigede District. The purpose of this study to determine how the relationship of the Jatigede dam construction towards socio-economic conditions of the farmers in the Jatigede District. This research is a quantitative research using questionnaires as instrument and tested by using product moment formula. The conclusion of this research show: The Jatigede dam construction has a relationship with socio-economic conditions of farming communities. The existence of construction in District Jatigede have influence to life of society around and also environment.

Keywords -- Construction, Social change, Community

I. INTRODUCTION

The development in an area is necessary for the sustainability of community life, because the community has basic needs that must be met. One of the efforts in fulfilling the need is with the development. The development is a conscious and planned effort to improve people's lives. The Government of Indonesia is working on these conscious and planned businesses in various sectors, such as education, agriculture and industry sectors. The government strives to make distribution of development in these three sectors with a focus on a goal to be achieved namely to improve living standards and meet the needs of people's lives.

To be able to meet these objectives then the government to make distribution of development in each region. Equity of development is focused on the crucial needs of society such as education, health, transportation, housing and natural resources such as water. To be able to improve the quality of education, health, and the economy the government needs to build schools, and health centers in each region. In addition to meeting these crucial needs, the government also seeks to align itself with developed countries in terms of state development such as conducting development of mega industrial projects. Some of the mega industrial projects that have been done are the construction of highways, factories, and dams.

Construction of Jatigede dam has been planned since 1963, but only realized in mid 2015. In addition to the irrigation system, another purpose built Jatigede dam is to be able to overcome drought problems during the dry season and handle the problem of flooding during the rainy season. It is also expected to serve as a provider of water for agricultural land. On the one hand with the existence of the dam construction the government wants to fulfill the crucial needs of the community that is water and also the increase in the agricultural sector, but on the other hand the Jatigede dam construction takes a lot of agricultural land which certainly has an influence on the life of farmers community.

Changes resulting from the construction of the Jatigede dam have had an impact on changing the livelihoods of peasants to non-farmers, and then gradually will have an impact on socio-economic conditions. According to Hopkins and Stanley (In Twice, 2012, p. 32) that, "Socio-economic status can be defined as the status of a person or family in society that includes the level of education, type of employment, source of income, residence and residential area." From Hopkins's explanation, socio-economic is determined by education, occupation, source of income, residence and residential area. Socioeconomic conditions may change after changing professions with income from new livelihoods which of course will be different when still a farmer. The authors will focus on building the Jatigede dam by examining more deeply about its influence on the changing socio-economic conditions of farmers into non-farmers. According to Nasirotnun (2013, p 17) explains that: "The understanding of socioeconomic conditions in this study is the position of a person in society with regard to education level, income level of property or facilities and type of residence." In connection with Nasirotnun's statement, the authors will focus on building the Jatigede dam by examining more deeply the effects on the changing socio-economic conditions of farmers into non-farmers. Socio-economic conditions are focused on income, livelihood, living ownership and education facilities.

II. PROBLEM STATEMENT

The purpose of this study to determine how the relationship of the Jatigede dam construction towards socio-economic conditions of the farmers in the Jatigede District. the construction of dams conducted in Jatigede is a mega industry development so that dam construction can not be avoided. Some mega-industrial projects that have been

completed in fact require a lot of land, this makes the government make changes to land use. Land use change is not only happening in urban areas, but also in the area of urgency. Land use change usually occurs on agricultural land, this could happen because the State of Indonesia is an agrarian country that part of its territory is agricultural land. One of the land use changes that occurred in the area is the construction of the dam that is done in Sumedang District, the Jatigede dam.

III. LITERATURE REVIEW

Social Change

Basically social change is a normal process that occurs in society, and in fact social change can not be avoided. Humans are dynamic creatures that often change and can not remain. Everything will change, nothing will remain, except the change itself. In any change is not based or caused by positive factors such as technological developments, but can be caused by negative factors as well as the emergence of conflicts that will trigger the change. changes also occur in farming communities in Jatigede sub-district, it happens because of the construction of Jatigede dam that has been carried by the government. It makes a change in the profession of some people in Jatigede sub-district, especially the farmers community, because the Jatigede dam construction requires a lot of land, so that the housing and even agricultural land become one of the areas inundated, it is in line with Riswanton, social changes that occurred in Jatigede sub- run smoothly, and farming communities have difficulty in determining where to live.

Modernization and Development

Development carried out by the government can not be separated from the term modernization. Modernization is one of the stages of social change in society. Self-development has a broader and deeper understanding of its basic understanding. Development is often referred to by the term modernization. Development is not only done in urban areas but also occurs in rural areas which will have positive and negative impacts because usually rural communities tend to reject the changes made by the government in the area of origin let alone to harm the lives of people in rural areas.

Socio-Economic

Society basically has the ability to meet the needs of life. Every human being collected in a unity called a society, has different abilities so that the work of each person is different too. In society a social status is formed, this is due to one's position in society. This happens because of different types of work and is supported also by education owned by everyone. Communities have mutual consent besides values and norms, namely agreement on socioeconomic status. Social status

becomes a differentiator because of its varied nature, such as gender, so that the treatment is also different and this affects the work owned by every individual in the community. Every individual in the community also has equal rights in education, and employment. Social conditions prevailing in the community have several factors so that people group according to their factors, wealth and income, Employment, and Education.

IV. METHOD

This research uses quantitative approach which is used to test certain theories by examining relationships among variables. In this study the researcher studied about the influence of jatigede dam construction on the socio-economic condition of the farmers community. This leads to the study of social change in society by using a quantitative approach. Participants is farming community. Based on the calculation of the number of samples in this study as many as 88 people / respondents.

There are several ways in which Creswell's data collection (2010, p.1) states that: Quantitative research methods generally involve the process of collecting, analyzing, and interpreting the data, as well as the writing of research results. However, in research surveys or quantitative experiments, for example, these methods appear more specific, which are usually associated with the identification of samples and populations, the determination of research strategies, data collection and analysis, presentation of research results, interpretation, and writing of research results.

The use of research methods will affect the process and research results. The research method is a technique used in research. This research uses ex post facto or comparative causal research method. According to Sukmadinata (in Riduan, 2008, p. 89) says that: Ex post facto research is to examine causal relationships that are not manipulated or treated (designed and implemented) by researchers. Furthermore, it is said that ex post facto research is conducted on programs, activities that have taken place or have occurred. Ex post facto research has no control of variables and usually there is no pre test.

Based on the above explanations, in this study the researcher uses ex post facto research method to describe empirical research with two variables, namely variable X (dam construction) and Y (socio-economic condition), the problem studied in this research is "The influence of dam construction on socio-economic conditions".

Researcher use ex post facto research method to describe empirical research with two variables, namely variable X (dam construction) and variable Y (social economic condition). The sample in this study as many as 88 people / respondents. This study uses a closed questionnaire whose answer has been provided by the researcher so that the respondents only choose the appropriate or match the choice of respondents. Researchers use Likert measurement scale

which in Likert is used to measure one's opinion of an event or a social phenomenon. The value for Likert scale is 5 = Strongly Agree, 4 = Agree, 3 = Doubt, 2 = Disagree, and 1 = Strongly Disagree. In this study the researcher uses two data analysis the first is quantitative data analysis and the second is descriptive data analysis. These two data analyzes have different functions, where quantitative data analysis to calculate the correlation test of two variables while the descriptive data analysis is to explain or describe the state and symptoms in the field with the help of measuring instruments. To get answers from the third problem formulation is to know the effect of variable X to Y and also to test the results of the hypothesis, this study uses correlation data analysis with the formula pearson product moment and coefficient of determination.

V. FINDINGS

The results of research of how important the construction of dams for the people of Jatigede District, as follows:

TABLE I: RESPONSE TO DAM CONSTRUCTION

No	Response	Frequency	Percentage
1	Strongly Agree	3	3,4%
2	Agree	14	16%
3	Doubt	20	22,7%
4	Disagree	23	26,1%
5	Strongly Disagree	28	31,8%
Total		88	100%

Source: processed by researchers, 2016

From the chart above can be interpreted to mean that a small proportion (3.4%) of the respondents are as many as 3 of 88 people answered strongly agree with the existence of dam construction, a small portion (16%) of respondents is as many as 16 out of 88 people responded agreed with the construction of dams, less than half (23%) of the respondents are 20 out of 88 people doubt, less than half (23%) of the respondents are 23 out of 88 people disagreed with the construction of the dam, and less than half (32%) of the respondents are 28 out of 88 people strongly disagree with the existence of dam construction.

TABLE II: THE EFFECT OF DAM CONSTRUCTION ON THE ENVIRONMENT

No	Response	Frequency	Percentage
1	Strongly Agree	5	5,7%
2	Agree	43	48,9%
3	Doubt	31	35,2%
4	Disagree	9	10,2%
5	Strongly Disagree	0	0%
Total		88	100%

Source: processed by researchers, 2016

From the chart above it can be explained that a small (5.7%) of respondents ie 5 out of 88 people strongly agree if

dam construction has an impact on the environment, less than half (48.9%) of respondents ie 43 out of 88 people agree if dam construction has been the impact on the environment, less than half (35.2%) of respondents ie 31 out of 88 people answered doubt about the impact of the dam on the environment, and a small portion (10.2%) of respondents ie 9 out of 88 people disagree if the dam construction has been the impact on the environment.

TABLE III: COMMUNITY RESPONSE TO EDUCATION

No	Response	Frequency	Percentage
1	Very important	26	29,5%
2	Important	40	45,5%
3	Ordinary	17	19,3%
4	Not important	5	5,7%
5	Very unimportant	0	0%
Total		88	100%

Source: processed by researchers, 2016

From the chart above it can be explained that less than half (29.5%) of respondents are 26 out of 88 people consider education is very important, less than half (45.5%) of respondents that 40 out of 88 people consider education is important, (19.3%) of respondents, 17 of 88 people considered the education is ordinary, and a small number (5.7%) of respondents ie 5 out of 88 people consider education is not important.

TABLE IV: MONTHLY INCOME

No	Response	Frequency	Percentage
1	>Rp. 1000.000	21	23,9%
2	Rp. 750.000 - Rp. 1000.000	24	27,3%
3	Rp. 500.000 - Rp. 750.000	43	48,9%
4	Rp. 250.000 - Rp. 500.000	0	0%
5	< Rp. 250.000	0	0%
Total		88	100%

Source: processed by researchers, 2016

It can be explained that a small (23.9%) of respondents ie 21 of 88 people have income > Rp. 1000.000 per month, less than half (27.3%) of respondents ie 24 of 88 people have monthly income ranging from Rp. 750.000 - Rp. 1000.000, and less than half (48.9%) of respondents ie 43 of 88 people have monthly income ranging from Rp. 500,000 - Rp. 750.000.

TABLE V: LIVELIHOOD

No	Response	Frequency	Percentage
1	Services	29	33%
2	Trader	29	33%
3	Labor	19	21,5%
4	Breeders	11	12,5%
5	Jobless	0	0%
Total		88	100%

Source: processed by researchers, 2016

From the diagram above it can be explained that a small part (12.5%) of respondents ie 11 out of 88 people work as breeders, a small (21.5%) of respondents ie 19 out of 88 people work as laborers, less than half (33% Respondents ie 29 out of 88 people work as traders, and less than half (33%) of respondents ie 29 of 88 people work as service workers.

TABLE VI: HOME OWNERSHIP

No	Response	Frequency	Percentage
1	Own Home	42	47,7%
2	In-laws / parents	31	35,2%
3	Rented House	15	17,1%
4	Relocate place	0	0%
5	Stay with relative	0	0%
Total		88	100%

Source: processed by researchers, 2016

From the above chart it can be explained that less than 47% of respondents are 42 out of 88 people own their own homes, less than half (35.2%) of respondents are 31 out of 88 people living in the place of in-laws, (17.1%) of respondents ie 15 out of 88 people rent a house.

TABLE VII: ELECTRONIC EQUIPMENT OWNED BY RESPONDENTS

No	Response	Frequency	Percentage
1	AC	0	0%
2	Refrigerator	37	42%
3	TV	44	50%
4	Telephone	7	8%
5	Radio	0	0%
Total		88	100%

Source: processed by researchers, 2016

From the chart above it can be explained that a small percentage (8%) of respondents have mobile phones, half (50%) of respondents own television, and less than half (42%) have refrigerators.

TABLE VIII: VEHICLE OWNED BY RESPONDENTS

No	Response	Frequency	Percentage
1	Car	0	0%
2	Motorcycle	49	55,7%
3	Bicycle	35	39, 8%
4	Pedicab	0	0%
5	Do not have a vehicle	4	4,5%
Jumlah		88	100%

Source: processed by researchers, 2016

From the diagram above it can be explained that a small (4.5%) respondents ie 4 out of 88 people do not own a vehicle, less than half (39.8%) of respondents are 35 out of 88 people have bicycles, and more than half (55, 7%) of respondents ie 49 of 88 people have motorcycles.

From the above results can be drawn the conclusion, the result of the response to the dam construction, the answer most given by respondents is strongly disagree with the existence of dam construction, the result of the response about the influence of dam construction on the environment. Most answers are agreed if dam construction has an influence on the environment, responses to education, the most answer is education is very important. The smallest revenue generated from the new job is Rp 500,000 while the largest revenue is Rp> 1,000,000. New jobs that are owned are diverse, such as traders, laborers, and service workers. Most of the people already have their own new homes, and some still rent and live in the in-laws' house. For ownership of living facilities, most farmers already have vehicles and electronic goods.

The Test of Influence on Development of Dams on Socio-Economic Conditions of Farmers Communities in Jatigede District

After performing the correlation test using SPSS IBM 22 software found the correlation coefficient value of 0, 607. The correlation test results are interpreted to the critic table (Table 3.8) using the 99% confidence level. The result of the correlation test of the influence of dam construction on socio-economic condition is strong.

1) $H_0 : r = 0$

“There is no influence of dam construction on the socio-economic condition of farmers in Jatigede District”

2) $H_1 : r \neq 0$

“There is influence from the existence of dam construction to socio-economic condition of farmer society in Jatigede District”

Hypothesis one received if $r \neq 0$. After the correlation test it is produced that $r = 0.607$. Therefore H_1 is accepted.

Coefficient of Determination

The coefficient of determination is used to determine whether the independent variable is influenced by the dependent variable that has been taken from the known coefficients. Calculation by using the formula as follows:

$$KD = r^2 \times 100\%$$

$$KD = 0,607 \times 100\%$$

$$= 60,7\%$$

It can be concluded that the independent variable (socio-economic condition) is influenced by 60,7% by dependent variable (dam construction)

VI. DISCUSSION

The results of research in Jatigede District, many people who do not agree with the construction of the dam, as a layman of the farmers do not know what the foundation of the dam development, so after doing research, many farmers expressed disagreement with the construction of dams because of the impact caused. Indeed so make farmers in distress. Farmers have to lose farmland that has always been a place to support their family. However, not all farmers disagree with the construction of dams, there are some who doubt about agreeing or disagreeing, this is based on having to accept the policies of the government even though they basically disagree. Farmers think they have to keep going and switch professions, so maybe that's what makes some farmers answer doubt, so many farmers do not agree with the construction of dams. In addition to having a great influence on the life of the surrounding community, dam construction also has an influence on the environment. Most of the Jatigede Districts do not agree with the existence of dams in their area, a lot of green land must be willing to be leveled for dams construction, but the existence of dam construction also have a positive impact on public facilities.

After the loss of agricultural land, many farmers have to change their jobs in order to remain able to meet the needs of life. Farmers must be able to adjust to the changes that occur, so that new jobs are cultivated by farmers also diverse. Some farmers changed professions into traders around the dam, others worked as service workers such as an ojeg and driver, and some became construction laborers and worked for dam companies as cooking workers, and construction of access roads to dams, hydropower, and wado rings.

Livelihood changes from farmers to non-farmers will lead to changes in everyone's income. The income earned varies from income ranges from Rp 500,000 to Rp. 750.000 per month, about Rp. 750.000 - Rp. 1.000.000 per month, and about > Rp. 1,000,000 per month. Farmers who are now turning professions into non-farmers adapt themselves to meet their daily needs.

In addition to changing professions, farmers also have to find a new residence. Most people already have their own homes, but some live with parents-in-law or parent's house, and some still rent. In addition to homes, electronic appliances and vehicles are included in the ownership of living facilities, most people already have electronic devices such as televisions, refrigerators, and mobile phones, as well as vehicles such as motorcycles and bicycles. The conclusion of the result of this research is socioeconomic condition of society have been formed and stable. This can be seen from the new work already owned, income, residence already exists although there are some who still rent and live with in-laws as well as ownership of living facilities with vehicles and electronic goods that most already have a motorcycle, also a refrigerator and television.

The Influence of Development of Dams on Socio-Economic Condition of Farmers Communities in Jatigede District

Based on the results of product moment correlation analysis test, it is known that the correlation coefficient value is 0.607 with 99% confidence level. Once interpreted into the table, the results of the correlation test of the influence of dam construction on socio-economic conditions of farmers in Jatigede sub-district is strong. After obtained the value of correlation coefficient (r) then it will be able to determine the coefficient of determination, namely how big independent variables are influenced by the dependent variable. After the calculated coefficient of determination known that the independent variable influenced by 60.7% by the dependent variable.

Basically, in the process of adaptation to this problem, there is a cultural system in which land conversion from settlement and agricultural sector to a dam-building site provides a change for the farming community in Jatigede sub-district. The government wants to build dams in areas where the livelihoods of most farmers are oriented. The loss of agricultural land caused by dam construction is a problem and it is a change experienced by the people in Jatigede sub-district. Farmers and the government try to overcome the problem by regulating land conversion.

The second stage is the function of goal achievement, where the government wants to keep using the land from five districts to be a dam construction area, and farmers can continue to live and not harmed at the time of land transfer, therefore the compensation fund given to the farming community is wrong A deal that may not be a collective agreement but the farmer still receives compensation from the conversion of agricultural land to a dam.

The third stage is integration, the farmer's action in following the agreement will preserve the social elements of the village community in relation to social institutions, social interactions, and social norms, as evidenced by the relationship between dam managers and the community, the opening of vacancies for the community.

The fourth stage is maintaining the pattern, after the change of land function that impact on the loss of agricultural land make farmers have to find other jobs to still be able to meet the needs of everyday life and by finding a new job is a process of adjustment to achieve balance. So even though the loss of livelihood as a farmer, the community can still meet the daily needs with changing professions.

From the above explanation and the results of the correlation test and the coefficient of determination in line with the theory of AGIL (adaptation, goal attainment, integration, latency) which states that the process of change that occurs in every social structure and sub system will still be able to maintain the balance, because each subsystem will work according to its part to keep balance.

VII. CONCLUSION (OR LIMITATION OR SUGGESTION FOR FURTHER STUDIES)

After doing research to be able to get data which then processed and analyzed about influence of dam construction to socio-economic condition in District of Jatigede, the conclusion as follows:

- I. The existence of development in the sub-district of Jatigede has an influence on the life of the surrounding community as well as the environment. In addition, the community's response to the existence of the dam is unnecessary and the community does not agree with the existence of dam construction because it affect the economic life of farmer society. Because agricultural land will be used for dam construction, and also the existence of dams affecting public facilities and the environment. The community also has not benefited from the construction of the dam. Although dam managers open jobs for the surrounding community. After conducting the research, it can be concluded that the existence of the dam has an impact on the surrounding community as well as the environment.
- II. The socio-economic conditions of farming communities that include education, income, employment and ownership of living facilities are said to reach a sufficient point, because even though the irrigation at the dam begins in August 2015, the farming community already has employment despite changing the orientation of farmers to non-farmers, as well as income generated from different new jobs while still being farmers, and views on education are very good, and farming communities have new shelter after land conversion although some farmers still rent and ride in-law's house.
- III. In line with the formulation of existing problems and after performing data analysis concluded that there is a

significant influence of the existence of the dam on the socio-economic conditions of farmers in Jatigede sub-district. Dam construction has an enormous influence on the changing socio-economic conditions of farmers in Jatigede District.

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