# The Study of Social and Cultures' Society at Koto Panjang Reservoir Catchment Area in the Lima Puluh Kota and Kampar District

## Khairani and Indang Dewata

Abstract--- The construction in at Koto Panjang reservoir catchment area Lima puluh Kota and Kampar district caused by the land use change that continues to occur due to changes in the social and cultural conditions of the community not only as a supplier of electricity in Sumatra's interconnection but also causing floods. Therefore, the aim of the research to studying about social condition and culture after the construction at Koto Panjang reservoir catchment area in Lima puluh Kota and Kampar district. The type of this research is a qualitative research, with data collection techniques using questionnaires, observation, interviews, and documentation. Furthermore, the data obtained were analyzed descriptively by using percentages to describe the social and cultural conditions of communities in the study area. The results showed that the forests exist around the Koto Panjang reservoir catchment area is customary lands society, where the participation of traditional leaders in the management of forest areas is still low, as seen from the absence of the customary rules (values/norms) which restrict the activities of people in the forest, so that people can perform economic activities through the farming and agricultural freely. Agriculture and farming activities to improve the local economic effect on floods and landslides.

Keywords--- Culture, Economic, Social, Catchment Area.

## I. INTRODUCTION

The construction does not only have a positive impact to reduce the gap but also have a negative impact in the form of exploitation of natural resources and environmental degradation, As in Limapuluh Kota which is catchment which serves as an energy producer of Hydroelectric Power Plant in Reservoir Koto Panjang. The benefits in fulfillment electricity needs but also have an impact flooding becomes a complex problem that requires a management approach that is comprehensive and integrated between the upstream and downstream, and the concept of sustainable development is considered as the answer to overcoming the negative impacts of development that can reduce land cover of the area. Sustainable development is a new perspective of construction that are committed to contributing to the future (Walkowiak, 1996). Therefore, it is important to do research with the title the study of social and cultures' society at Koto Panjang reservoir catchment area in the Lima Puluh Kota and Kampar district

The aim of the research to studying about social condition and culture after the construction at Koto Panjang reservoir catchment area in Lima puluh Kota and Kampar district. Social and cultural indicators were selected for the sustainable development indicators should be able to represent the economic, social and environmental (Pardi, Nawi, & Salleh, 2016).

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#### **II. LITERATURE REVIEW**

#### a. Social And Cultures' Society

The term of social comes from socius word that means everything that is born, grows and develops in a life together. Enda (2010) states that social is a way of how individuals are related. Ranjabar (2006) describes that social in the sense of community means everything related to the system people or group of people which is have covered the structure, organization, social values, and aspirations to live and how to achieve it.

Furthermore, the culture means the attitude of human life in the associated reciprocity with nature and the environment in which is included as well, all the results of creativity, taste, intention, and papers, both physical material and psychological and spiritual (Ranjabar, 2006). The culture of the whole aspect of human life both of material and non-material. Most of the experts who interpret culture like this more likely to be influenced by the views of evolutionism, that is a theory which says that culture will evolve from simple steps towards a more complex stage (Setiadi, 2008).

The society is formed inseparable from socio-cultural elements in it, such as the existence of individuals or social groups, patterns of interaction which owned the existence of social values and cultural values, social institution and cultural patterns in the communities. The success of the socialization process of social and cultural values which further institutionalized to communities cannot be separated from some stages of the activities carried someone through their parents. This stage, among others; the imitation stage, identification stage, suggestion stage, sympathy stage, restraining stage, the stage, and the last rationalization projection stage (Sulistyowati, 2003).

In the socio-cultural system, there is an imbalance in its application. It can be felt when one of the more dominant factors than other factors, technological and economic factors more important than social factors so that there is an imbalance. The unbalanced state is actually one of the causes of natural disasters. This imbalance phenomenon can be traced from the cultural authorities want instantaneous or want to get the results in a way beyond the rules that have been set. This is done by the authorities to meet the needs of himself and his relations. The policy of the ruler causes floods, landslides, or a reduced population of protected animals.

#### **Catchment** Area

A unit area / region/district water system that is formed as naturally in the water where caught and will flow out of the leading to the creeks and rivers are concerned. In English, there are several kinds of terms namely Catchment Area, Watershed. The rapid demand for space, particularly in the catchment area, which has the function of hydrology in ensuring the availability of water, often overlooked the impact on the water supply. So that the low availability and lack of water increasingly perceived by the public. Obtaining water is the right of every person on this earth, so that the activities that make each person to obtain water, whether realized or not a violation of human rights. However, the high demand for space, the market mechanism is the highest factor in economic profit. So the waiver of the hydrologic function is forgotten for the sake of momentary economic gains (JAYADI R. 1995).

The role of Civil Society in Managing the Environment Based on Law No. 32 of 2009 is to create and then maintain a balance between meeting the needs of humans and sustainable utilization and the existence of natural

resources. Because of what happened at the moment is the fulfillment of human needs overload has led to a reduction in the current. The resource management of natural resources still provides significant value for the improvement of public welfare. The role of the community in managing Development Environment is basically a process of change, and one of them is the change in attitude and behavior. Increased community participation and evolve is one of the manifestations of the changes in attitudes and behavior of objects that must be preserved and protected for the benefit of all sentient beings on this earth. In this case, local activities are the media and means for the community to participate. So that the development process can continue to be sustainable, it needs to be arranged so that there are continuity and cumulative increase in the community of citizen participation through joint action among communities, governments, and companies.

In order to manage the environment must not be separated from the role of the community in which each person people have the same rights to decent environmental conditions and good to live and perpetuate his life. The state must provide environmental facilities that are good for all communities, both rural communities, and communities living in the city. These rights have been guaranteed in the 1945 Constitution Article 28 H, that everyone has the right to the environment.

## **III. RESEARCH METHOD**

The research is a qualitative descriptive study raised the geographical variety of phenomena and social and contextual realities (Soemantri, 2005). The study was conducted during the four months from May to October 2018 with research sites in the Pangkalan sub-district in 50 City Koto district. Data on social and cultural conditions of the community were obtained using questionnaires, observation, interviews, and documentation. The acquired data is analyzed descriptively using percentages to describe the social and cultural conditions of communities in the study area.

## **IV. RESULT AND DISCUSSION**

Administratively, the largest proportion of Koto Panjang reservoir in the territory of Kampar District especially in XIII Koto Kampar district and most are in Lima Puluh Kota district especially in Pangkalan Baru. Reservoir Hydropower Koto Panjang is about 20 km from Bangkinang or 87 km from Pekanbaru, built in 1992 and was completed in 1997 with a major water supply of Batang Kampar Kanan and Batang Mahat tipped in Sub Base in Pangkalan Koto Baru, Lima Puluh Kota district, west sumatera barat province. Based on PT. PLN (Persero), Watershed area (DTA) is 3,337 km<sup>2</sup>, puddle reservoir 124 km<sup>2</sup> (12,400 ha), 1,545 km <sup>3</sup> storage capacity, maximum water level 85 m above sea level on the condition of full water supply, the total inflow to the reservoir 180.4 m<sup>3</sup> / sec and outplow 178 m<sup>3</sup> / sec with an active capacity of 1.040 million m<sup>3</sup>, can produce 114 MW of electricity (3 × 38 MW) or 542 GWh / year. The administrative area of the Riau Province in Kampar District in the catchment area is 72,088.96 ha (21.89%), and the administrative area of West Sumatra Province is 257,256.81 ha (78.11%) with details in Pasaman Regency 54,757 04 ha (16.63%) and the City District Fifty 202,499.77 ha (61.49%) (Nurdin et.al., 2017). Thus, the physical condition and the community in the Lima Puluh Kota District heavily influenced by hydropower reservoir DTA Koto Panjang. The construction of Koto Panjang Hydroelectric project would provide environmental influences, especially the social, cultural and economic components as well as the biophysical environment

From the results of the implementation of surveys and interviews that have been made known that the construction of reservois hydropower requires people to move to localized new ones, so the removal process is still encountered obstacles or the rights of people who have not met, either in the process of negotiation, infrastructure development early, and the implementation of resettlement. In addition, the existence of hydropower reservoirs is surrounded by forests which are communal ulayat lands, where the participation of traditional leaders in managing these forest areas is still low, so there are no customary rules (values / norms) that limit community activities in the forest, including prohibitions / myths related to forest conservation.

In addition to the role of traditional leaders, costum institutions found in Limapuluh Kota and Kampar district also plays an important role in maintaining forest areas in the form of preserving forests, forestry institutions, correspondence, sanctions, and joint forest protection the same, mamak and local government deliberations, mutual cooperation, adat leaders' meetings on forest management, recognizing boundaries, establishing cooperatives, replanting forests after being cut down, there are regulations in processing forests that are made, and the existence of areas that are preserved for wildlife.

The construction of the Koto Panjang Hydroelectric reservois has a positive and negative impact on the sociocultural life of the community. Negative impacts can be seen from the widespread occurrence of community diseases (concentrated) and socio-cultural values that have disappeared, such as the rumah gadang, the pandam pakuburan and the ulayat land of the community. On the other hand, the positive impact on the socio-cultural life of the community is to broaden the community's knowledge of expanding business opportunities and employment, increasing community income and distributing decent housing for each family head.

The anticipation of the negative impacts, required the involvement / role of government and in the maintenance and pelstarian hydropower catchment area.

The government's role in forest maintenance quite enough, which is evidenced by the cooperation between local government, the hydropower to communities in maintaining forests and watersheds. The cooperation is manifested in aid giving tree saplings to help communities preserve forests and rivers

#### **V.** CONCLUSION

Koto Panjang Hydroelectric reservoir are mostly in Pangkalan Baru, Lima Puluh Kota District. Physical changes of Pangkalan Baru, Lima Puluh Kota district due to the presence of the reservoir, have an impact on social and cultural conditions of communities. The negative impact of widespread community illness occurs (concentrated) and socio-cultural values that participated disappeared as the longhouse, Pandam pakuburan and communal land of the community are mostly found in the forests located around the reservoir. On the other hand the positive impact generated against sosial life culture that is widespread public broaden business opportunities and employment, rising incomes and distribution of appropriate housing for each family. Antisipasi these negative impacts, required the involvement / role of government and hydropower in safeguarding and running of the catchment area.

## REFERENCES

- [1] Nastiti AS, Nuronial S, Purmamaningtyas SE, Kartamihardja ES. 2001. Daya dukung perairan waduk Jatiluhur untuk budidaya ikan dalam keramba jaring apung. *Jurnal Pen. Per. Indonesia*. Vol. 7 (2): 14-29.
- [2] Nurdin., Bahri., Zulkarnain., Sukendi. 2017. Analisis Indek Penutup Lahan Daerah Tangkapan Air Waduk PLTA Koto Panjang Menggunakan Aplikasi Sistem Informasi Geografis (SIG). Seminar Nasional Strategi Pengembangan Infrastruktur ke-3 (SPI-3) Institut Teknologi Padang.
- [3] Maju, S. 2010a. Daya dukung Waduk PLTA Koto Panjang Kampar Propinsi Riau. Jurnal Perikanan dan Kelautan, 15 (1): 25 38
- [4] Siagian M. 2010. Strategi pengembangan perikanan keramba jaring apung berkelanjutan di Waduk PLTA Koto Panjang Kampar Riau[Disertasi]. Bandung: Program Pascasarjana. *Universitas Padjadjaran*
- [5] Somantri, G.R. 2005. Memahami Metode Kualitatif. Makara, Sosial Humaniora, Vol. 9(2): 57-65