

Social and economical status of local community around coal special terminal in Negara River, Tapin Regency-South Kalimantan

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Abstract : *The aim of the study was to describes the economy and social status of local people in Field survey was done in Tapin Regency in South Kalimantan. Some important finding in this research area, including number of local people involve in company was increase, and jobs become vary. Working in coal mining is important at present and provides significant revenue for local people. Many people, however, still depend of agricultural activity. Farming remains a very important activity in Sungai Putting and Margasari Villages. Local people usually has double sources for income. It is involve the combination of working in paddy field, orchards, and fishing. Some people also become local trader and involved in transportation sectors. The human resources development needs to be improved systematically.*

Keywords -coal mining, social impact, economy impact

I. INTRODUCTION

Coal is one of the important sources for energy. In Indonesia, spots distribution of coal were found in some place, but the abundance area for coal was South Kalimantan, East Kalimantan and South Sumatra. These areas have been mapped for its potentiality as area with huge coals deposits. Coal was mined and extracted to provide energy for electricity. In some countries, coal is energy source for production of cement and steel. According to Ministry of Energy and Mineral Resources (2015), coal production in Indonesia was increase gradually from 217 million tons in 2007 to 458 million tons in 2014. Indonesia coal export was increase from 163 million in 2007 to 362 million tons. As far, Indonesia is important coal exporter in the world. Domestic consumption of coal was 61 million ton in 2007 and increases 76 million tons in 2014 [1] [2].

Kalimantan is one of the islands with huge deposit of coal. Coal become significant natural resources in Kalimantan. According to statistical data, coal which is mined from Kalimantan contributes significantly in national earning. South Kalimantan is one of the centers for coal reserves. Based on the Coal Mining Association (2001) the identified deposit of coal in South Kalimantan was estimated about 6.529 billion ton. According to *Wahana Lingkungan Hidup* Kalimantan Selatan (2009), South Kalimantan province produce 70 million ton per year. About 70% of such production was exported. In South Kalimantan, coal reserves were found Kota Baru, Tanah Bumbu, Tanah Laut, Banjar, Tapin, Hulu Sungai Selatan, Balangan and Tabalong [3] [4].

The coal mining activity in South Kalimantan contributes significantly to people migration, especially labor force. Needs of labor in mining area is increasing significantly following increasing demand of coal for industry. Labor was distributed in every aspect of mining activity, ranging from coal extraction to transportation and delivery systems. In transport and delivery system, coal mining provides numerous jobs and in many case able to initiates local economic activity [5] [6]. The national and local regulation state that coal mining investors should be established special road to support coal transport and delivery system. Locally, based on the South Kalimantan Governor Degree no 3 Year 2008, it is prohibited to use public road to delivers mining product (i.e, coal) and plantation commodity (i.e. palm oil). Following such regulation, companies establish new roads to support coal delivery system. In some case, however, coal delivery from extraction or stockpile sites was done through waterborne. Coals transportation through rivers is one of the options to transfer coal from exploration point to coal terminal [7] [8]. There are some coal special terminals has been established, especially in coastal area or in some potential sites in riverbank. In Kalimantan some coastal area in Kotabaru, Tanah Bumbu and Tanah Laut are important sites for coal special terminal.

Some regency without coastal area using riverbank to transfer coal from exploitation and stockpile sites, such as Tabalong, Balangan, Hulu Sungai Selatan, Tapin and Banjar. Negara River is one of the important

corridors for coal delivery through waterborne system. Some point in Negara River recently grows as settlement which has special relationship with mining activity. Mining has triggering some villages development. As far, however, there is no evaluation regarding the impact of the coal mining activity to village development and impact in social and economical status. The aims of the study was to determine the socio-economical impact of coal mining industry to local people along Negara River in South Kalimantan

II. METHODOLOGY

Study area Tapin regency located at South Kalimantan and geographically it is located at latitude 2°32'43" to 3°00'43" and longitude 114°46'13" to 115°30'33". The total area of regency was about ±2.700,82 km² with 12 sub district According to statistical data, the number of population in Tapin Regency was about 326.812. About 67.34% of the area was located at altitude 0-7 m above sea level. The area with elevation above 500 m was about 1.21% of the total area of regency. The primary and secondary forest of Kalimantan has been reported rich in term of biodiversity. Kalimantan Island in home of numerous species. Many of them are endemic to the Kalimantan Island. Local people has been reported practiced traditional knowledge. This practices has been reported contribute to the Kalimantan's biodiversity conservation.

Field survey was done in two villages, namely Sungai Putting and Margasari Villages, Tapin Regency Fig. 1. In such villages, there are coal special terminal. Sungai Putting and Margasari located at the periphery of Negara River in which the rivers flows was used as coal transport corridors [9] [10].

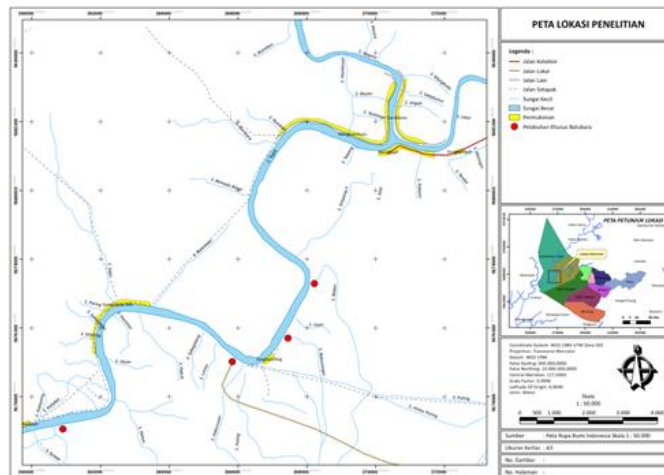


Fig. 1. Negara River flows and coal transport corridors in Tapin Regency.

Methods The socio-economic study was done from September to November 2016. An interviews survey was done in two villages, namely Sungai Putting and Margasari Villages. Previous step was done by getting permission from related institution and formal and informal community leaders. In such step, some open ended interviews was done to generate basic data and information related to the villages conditions. After permission and some basic information were obtained, visitation of household family to conduct survey was done. Questionnaire was developed and distributes to the responded. Questionnaire consist of (1) households social-economy status, including types of work, revenue, opportunity to get jobs, part time farming and economic facility and infrastructure, (2) aspect related to social culture and (3) aspect related to the economy of natural resources. The key person of this study was including leader of the village, religious and spiritual leader, head of kampong, *Adat* leader, senior, and governmental representative. These key people were asked about the general aspect of community life and its social economical aspect. These key person appear to have the most substation information of all needed data. In each interviews was done at least 45-60 minutes in time and place stated by informant. Respond of the informant was recorded and noted in field noted for further data analysis.

Secondary data was collected from numerous offices, including office of Mining, Regional Institute for Development (*Bapedda*), Regional Office for Statistic (*Badan Pusat Statistik*), Sub district office and rural office.

Family income levels was measured using formula:

$$I = TR$$

with:

I = Income

TR = Total Revenue

From the perspective of households spending, the income level was measured following formula:

$$I = c - i + s$$

- With:
- I = income
 - c = consumption
 - i = investment
 - s = saving

III. RESULT AND DISCUSSION

Social economy conditions

Social and economic aspects are important factors to be taken into account in the evaluation of coal specific terminal existence in South Kalimantan. The fundamentals social-economy of local community in study area does not differ from other community in South Kalimantan. Historically, local people in South Kalimantan has marginalized and received less attention from central government, especially in economic development. The development of infrastructure in Kalimantan was limited and led to the low industrial performance. In many area, local people still exist with their local customs and traditions [1] [9] [11].

South Kalimantan, however, is rich in term of oils, gases, minerals and coal. The coal deposits of South Kalimantan was already known and exploited at the time of colonization era. The important aspect regarding the rich island of Kalimantan and the local community welfare is that the abundance natural resources, but it is not reflected and related to the local people prosperity. Impact of the coal exploitation to local community, however, was low [12]. Respondents state that coal exploration might be benefits to some people, especially outsider with skill, but not so for the local people with low capacity and skill. This is relevant with the statistical data, especially economic and human prosperity and development index (Table 1)

Table 1. Human development index of Tapin Regency

Regency	Human Development Index			
	2010	2011	2012	2013
Tapin	64.89	65.41	65.92	66.48

Family economy status

Income per capita is an indicator of community welfare. Based on statistical data of Candi Laras sub regency, the local people in study area traditionally depend of the rice and crops cultivation (BPS CandiLaras, 2014). The rice production from the area was about 59.089 tones/years. Other potential commodity was rubber and palm oil. In Margasari Hilir and Sungai Putting village, farmer was dominant (525), followed by labor in civil contraction, fisherman and other profession, and labor factory about 3.7%. Local farmer sell rice and crops in the temporary market in Rantau, the capital town of Tapin Regency. Yield from paddy field and orchards are ultimately affected by land fertility and farming management. In Sungai Putting and Margasari Villages, however, the land fertility was medium.

The number of local people working in informal sectors has increased dramatically in the recent years. Number of farmer tends to be decrease slowly. Recently, few young generation involved in farming systems. Low involvement of young generation in farming system is probably largely the consequences of modern life style. Coal worker from outside villages area also seems contributes to the less interest of young generation in agriculture. Many young generation and house hold family member recently changes the jobs into coal mining. According to responded, salary generation from coal mining was fast compared to the agricultural sectors. According to the regency officer, the contribution of coal mining sector in recent labor forces was important. In Tapin Regency, the profile of the participation of local people in numerous sector of jobs was fluctuates yearly, as shown in Table 2. In such figure, according to the key person in this study, the contribution of coal mining was significant.

Table 2. Number of labour force in Tapin Regency 2007-2013.

Regency	Number of labor force participant						
	2007	2008	2009	2010	2011	2012	2013
Tapin	72.47	68.05	70.54	71.11	70.66	67.52	69.89

Sources. Statistic office of Tapin Regency, 2014

Households income The survey confirm that 37.5% of respondents has monthly income about ≤Rp. 1,000,000. About 45% has monthly income Rp. 1,000,000 to Rp. 2,000,000. About 45% respondent was >Rp. 2,000,000. Family with income less than Rp. 1,000,000 has developed adaptation to survive by increasing natural resources potential, live stock and small agricultural activity. The income from wage labor is quite small. The people of study area are much more dependent for subsistence on cash incomes.

Coal mining provides new opportunities to increase household ability to generates money. The salary from coal mining has been stated important to cover daily life needs of household family. While income from

agricultural sectors reported depend on the harvest time and crops quality, the income from coal can be generated weekly or monthly.

Work opportunity and economic activity

The local people were originally farmer. Number of family member as worker was ranging from 2 – 3 per family households. The main works was becomes farmer in small lands, especially in rice cultivations. Based on the interviews, the productivity of paddy was about 5 tons per hectare. Respondent stated that recently, there are numerous limitation of rice cultivation, including pest and disease attack to rice cultivation. There are probably decrease in lands quality to support rice cultivations.

Based on the interview, respondents who are become farmer state that the revenue and commodity was enough to support family life. There are no problems with food availability. There are part time farming as an adaptive strategy to increase family revenue. Part time farming provides significant benefit to local people, especially in term of family revenue. Interestingly, part time farming activity are not special case for poor people, but it is also easily found among all of the family conditions. Part time farming activity was often done in time especially in the periods of post harvest time. In such time, the intensive attention and management of rice and crops was low, and there are a lot of time to do any jobs.

Variation of work among local people reveals that jobs availability and opportunity was dynamic, but it seems that working in coal mining influence the profiles of community activity and works. Working in coal mining sectors provides a larger proportion of economic revenue than farming. The probability to generate continues revenue is relatively high. According to respondent working in coal mining sectors substantially able to increase household income. Although local people prefer to joint coal mining sectors, which provides significant revenue, the status of local people in company was low. In developing region, including society in Tapin Regency, farming is widely regarded as basic and fundamental activity and consequently the system should be supported by policy and infrastructure. It is especially important to maintain human economic system and development [13] [14].

Economic facility and infrastructure

Economic facility and infrastructure are crucial among local people in rural area. Economic activity in study area was supported by poor facility which are needed to improved. In many area of villages in Kalimantan, it is common to found poor economic facility and infrastructure. According to respondent, this phenomena has been identified by central and provincial government to improve the economic facility and infrastructure.

There are also rural cooperation (KUD, *Koperasi Unit Desa*) as one of the local institution to support economic activity [15]. KUD is important to support economic activity in Sungai Putting and Margasari Villages. Some family in the villages open small shops to provides numerous goods for daily life need of community. Rural market is the central f economic activity. As many market in remotes and small area, rural market was opened one time in a week. Market is an important instrument in rural economic activity. In this study area, village market located at Margasari Village. The villages can be said as traditional market with sellers comes from Banjarmasin city using traditional boat. Rivers still an important corridor for human movement for economic activity in South Kalimantan[16].

Recently, however, there are many projects being carried out by central and provincial governments related to the infrastructure development. In the past, people in Sungai Putting and Margasari Villages walk to the market and transport numerous commodity using traditional boat. Farming-based economy might depend of the infrastructure, especially to transfer crop yield from orchards to the market.

Socio-cultural aspects

In the perspectives of culture, Banjarese is the dominant community in study area. It was followed by Javanese and other ethnic. It is especially observed in Margasar Ilir Village, Candi Laras Utara sub district. The majority of village dweller was Muslim. Some tradition still existed, including birth celebration, (locally called *tasmiyah/aqikah*), wedding, funeral, and the celebration of Islamic special days. The uses of local customs and tradition are strong in such ceremony and daily life.

Daily life of local people in study area cannot be separated with local social system, including norm and basic rules which area bound community member in order to increase society unity. The organization still maintains tradition systems. It can be observed by the existent of informal leader. However, social structure and level was not clearly observed. In the community, the different in social status area related to the degree of education level, economic, types of work and power. Village head, coordinator area and other informal leader is an important person in rural organization. This system is common in developing countries [17] [18].

There are some social organization exist within local people, namely *Kelompok Yasinan* (religious organization), *Rukun Kematian*, *Karang Taruna* (youth organization), *Posyandu* (community health service group), *kelompok tani* (peasant group), and local NGOs. These social organization play an important role in community life. This groups also important for community development programs. Through these community, any problems related to the daily life, relationship and interaction of the community member was discussed. Conclusion and action recommendation often resulted from discussion through social organization. Social

approach as far was very effective to facilitate conflict. This approach is also useful to deliver development messages to the community [19] [20].

Social changes in community represent community dynamics, as shown in study sites. The process of social changes in this study area is affected by several aspects, such as labor force from outside area and transmigration program. The education is also contributes to the social aspect of the local community. Social changes are important. It is related to the community perception and view about development and community involvement in the development process, especially in opportunities to get job, health and educations [19]. Based on the research, the acceptance of respondents survey to external labor was high. About 90% of responded states that local labor able to make adaptation with local community. There are no conflict between local people and external labor related to the issues of religions, race and *adat*.

Community voluntary working together (locally called *gotong royong*) is still implemented, especially in special days such as Indonesian Independent Day in every August 17th. There are no changes in term of community voluntary working together.

External labor with special skill often triggers social conflicts. The conflict between local dweller and outsider is subject to the numerous studies and discussion. Conflict often occurs due to the different human skills in handling jobs between local people and outsider. According to informant, outsider often has good skill and can be viewed as educated people with good ability in adaptation and creativity. These aspects are important in competition. Local people, however, lack of such aspect due to the lack opportunities to access education systems. Therefore, improving education system is important part to increase human capacity [21].

Natural resources economy

Lands ownership can be classified into three categories, namely personal, communal and collective. The personal ownership means that household family has legal access to the land. There are often land certificated or other legal evidence of land ownership issued by government. This types of land ownership encompasses rice land farm, home gardens, orchards, and settlement area. Personal lands derived from bequest, buy, and open new area for agriculture activity and settlements.

The communal lands was managed by community. According to *Adat* Law, all of the flora, fauna and natural resources inside communal land belong to community. Most of the product is for community consumption rather than for sale in markets. The collective land was used to provides basic community needs, such as village office building, village yards, village lands, and other form of infrastructure and facility.

Education is clearly important aspect for community development. In Sungai Putting and Margasari Villages, the level of education seems to be the limited factor for development. Skill to use and manage the potential resources was limited. The recent condition of education infrastructure was summarized in Table 3. From this tabe it is clear that the further development of education infrastructure was needed. Under this circumstance, natural resources contributes little to local people.

Table. 3. Number of scholl under regency management in Tapin Regency 2013 [10].

Level	School	Class	Number of room	Student	Teacher
1. Kindergarten	2	28	14	242	19
2. Elementary Scholl	174	1,098	1,084	19,026	1,527
3. Junior High Scholl	22	177	180	3,949	360
4. Senior High Scholl					
- Common High Scholl	5	66	59	1,775	120
- Vocational	3	40	38	2,071	100
Total	206	1,409	1,375	27,063	2,126

Although the education might be the crucial cause of poor human resources quality in Sungai Putting and Margasari Villages, other traditional and local knowledge may contributes to the environmental sustainability. Scholars point out that traditional knowledge is one of the important aspects in traditional and local people live, in which it contribution to maintain the integrity of environment widely reported. The traditional knowledge ensure the sustainability used of natural resources. In Kalimantan, there is numerous form of indigenouse knowledge which area contributes to the biodiversity conservation. Threats to the continuous traditional knowledge have been identified numerous in Kalimantan, including lack appreciation of young generation due to modernization and economic factors [22]. Population grows and forest conversion in Sungai Putting and Margasari Villages area has reduced suitable habitat for wildlife and therefore threats to biodiversity. Consumerism grows and leads to the distortion of natural resources economic among local people. Coal mining is one of the significant factor the changes local people behavior

[23]. Coal mining stimulates people from numerous region comes to the coal mining area and potentially influence local live systems significantly. Scholars point out that there are potential behavior changes.

Natural resources depend was observed in this study. The important natural resources among local people is land and rivers. Most of the local people depend on such resources. Land was managed to produce rice, vegetables fruits and other crops while roves provides significant role as place to collect fish and as corridor or movement. Local agriculture development as far facing limitation program such as technology and pest-disease control. It is especially important to increase agricultural productivity based on natural resources management.

IV. CONCLUSION

Clearly, working in coal mining is important at present and provides significant revenue for local people. Although there are opportunities to works in industry and coal mining sectors, local people still depend of agricultural activity. Farming remains a very important activity in Sungai Putting and Margasari Villages. The economic profiles of local people in study area was vary, with some family was poor. Local people usually has double sources for income. It is involve the combination of working in paddy field, orchards, and fishing. Some people also becomes local trader and involved in transportation sectors. The human resources development need to be improved systematically. It is especially important to support local development occurs in sustainable manner. The cultural aspect of indigenouse knowledge should be accommodate and preserve in the local-regional framework development

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