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The Socio-Economic Performance of the Penan Community at Murum Resettlement Site, Belaga, Sarawak

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Abstract

Murum Resettlement Site (MRS) is one of the government's programmemes aimed at ensuring a better future for communities impacted by Sarawak's dam developments. The Penan was the largest community being relocated to MRS in 2013 before the construction of Murum Dam. This relocation programmeme has resulted in various impacts and reactions from those involved. The objective of this study was to examine the socio-economic performance of the Penan community after relocating to MRS. The study was conducted in December 2020 using quantitative and qualitative approaches. Data were collected using questionnaires, in-depth interviews and site observations. A total of 269 head of households and six key informants were interviewed. SPSS software was used to analyze the data collected. Out of 24 aspects that were evaluated, a total of 11 socio-economic aspects were found to have improved well. These aspects were home ownership, household income, property ownership, job opportunities, level of skill and knowledge, educational facilities, electricity supply, road accessibility, communication facilities, religious building and sports/recreation facilities. Two aspects that remained good both before and after transferring to MRS were security and neighborhood relations. The four aspects that were getting worse were land ownership, access to forest resources, clean water source and air quality. The aspects that remained bad either before or after being relocation were saving, investment, level of education, transportation facilities, health facilities, business facilities and organized participation. Overall, the data showed that the families' economic and social conditions had improved after they moved to the resettlement area. However, the study concluded that there is still room for improvement in terms of fundamental services, such as supplying every household with multiple clean water sources, more accessible healthcare services and better road conditions. Better road access comes with increased business and social activity, which in turn makes it easier for the Penans to find jobs and help to lift them out of poverty.

Key words: Penan; Resettlement site; Socio-economic performance; Belaga; Sarawak

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1. INTRODUCTION

The Penan people are one of 28 indigenous groups that live in Sarawak, Malaysia. Penan is in the same group as Dayak, but is classified as Orang Ulu, along with other tribes such as Kayan, Kenyah, Kelabit and others. This is as spelled out in Article 161 (A) Clause 6 (a) and Clause 7 in the Federal Constitution of Malaysia and Section 3 Sarawak Interpretive Ordinance (Chapter 61, 2005) that recorded the Penan as a native race and people of Sarawak. According to the Year Book of Statistic Sarawak (2015), the Penan population was estimated to be about 12,485. Most of them reside in Mt. Mulu, Ulu Baram, Tutoh Apoh, Patah, Pelutan, Hulu Akah, Selaan, Baram valley to the border of Brunei and Hulu Sungai Limbang (Kaidir, 1993) Sarawak.

In Bintulu and Kapit divisions, the Penans can be found along Balui, Belaga, Murum and Linau rivers (Langub, 1975). Their main economic activities were farming, collecting forest produce, fishing and hunting. Besides that, some of them also worked at logging camps and oil palm plantations. Their economic activities and occupation choices depended on their abilities and skills. Other factors included the development of a certain area and job opportunities that were available in that area.

A majority of the Penans resided in longhouses, much like the other natives in Sarawak. Their longhouses were simple and usually do not have necessities such as clean water supply and 24-hr power supply, or facilities like clinics, schools and a good road system. The living condition, poor healthcare contributes to the limited number of educated Penans and makes it difficult for them to get out of poverty.

1.1 Resettlement Programme in Malaysia

Resettlement is a programme whereby a community is relocated from one place to another to make way for large-scale development projects. Akpanudoedehe (2010) explained that resettlement is a big scale relocation of a community from their place of origin to a new site whether willingly or by force. Resettlement can be done spontaneously or with proper planning from an original residential area to a new place where the community needs to get used to the biophysical, social and new administrative system (Agba et. al., 2010). Other factors that may cause resettlement include conflicts, natural disasters and livelihood improvement besides development projects (Mulugeta and Woldesemait, 2011).

The concept of resettlement programmes is not new in Malaysia. The Orang Asli resettlement programme in Pahang was established due to land development. In Johor, the Perintis Garden residents' resettlement programme was established to make room for the construction of the Wilayah Iskandar project. In addition to this, the people who lived in the Taman Permata neighborhood of Selangor had to be moved in order to make room for the construction of Putrajaya city. The villagers of Kg. Gana, Marudu in Sabah also went through a similar programme for the establishment of protected forest areas.

In Sarawak, many resettlement programmes have taken place such as in Triboh, Melugu, Skrang, Hanga Sekuau, Nanga Ngungun, Jagau, Tada and Nanga Dap, Sg. Asap and the latest being the resettlement programme in Murum. Six Penan villages in total were relocated to the resettlement area in 2013 to make way for the Murum Dam construction in Belaga, Sarawak. The villages involved were Long Wat, Long Malim, Long Luar, Long Manapa/Pelutan, Long Singu and Long Tangau. A total of 1,417 Penans from 335 families were being relocated. This makes them the highest number as compared with the Kenyah communities which only consisted of 113 people from 18 families. This programme was the first ever to relocate such a big number of Penans. Prior to this, 30 Penan families were relocated to the Bakun Resettlement Area.

A majority of the Penans did not agree to be moved to the new resettlement area. Based on their opinion, the move might not be beneficial to their socio-economic welfare. Besides, they had to abandon their homes, land and abundant forest produces. Additionally, they thought it would be challenging for them to adapt to the new environment and way of life. Therefore, it is very important to understand the socio-economic impact of each resettlement programme. With this vital information, plans and development can be carried out in accordance with specific community needs.

1.2 Objectives of the Study

The objective of this study was to evaluate the socio-economic performance of the Penan community that was relocated to Metalun and Tegulang resettlement areas. The assessment was based on 24 aspects that includes job, education, transportation, social and neighbourly relations, environment adaptability, culture and health that deeply affected them after the relocation. The study also scrutinized and discusses the difference of socio-economic status of the respondents in both resettlement areas.

2. LITERATURE REVIEW

Resettlement satisfaction studies were also conducted in Southeast Asia. In the Philippines, a study on disaster-induced resettlement programme in Cagayan de Oro concluded that the residents were dissatisfied with the housing infrastructure (Carrasco et al., 2016). Extensions have been made by the residents because of the lack of spaces for cooking, storage and doing laundry (Carrasco et al., 2017). A study conducted along the Mekong River basin found that a more detailed understanding of the residents' adaptation process is crucial in rebuilding and improving their lives of those affected by development projects (Kura et al., 2017).

Seo et al. (2021) studied property ownership and resettlement options of the riverfront slum dwellers in Vietnam. Most of them preferred in-situ slum upgrading or cash compensation and self-relocation. In Malaysia, case studies involving resettlements of Orang Asli in Pahang that has been conducted by Abdullah et al. (2018) found that they were dissatisfied with the resettlement project in terms of livelihood, traditional lifestyle and cultural needs. In addition, studies by Ali et. al. (2016) and Lee et al. (2018) discovered that the Orang Asli were satisfied with the facilities that have been provided as compared to what they had in their old homes. There were positive impacts on their quality of life such as healthcare access, improved livelihoods and better education opportunity after the relocation.

In addition, Well and Iman (2019) found positive

impacts in Sabah regarding the Gana Resettlement and Integrated Development Programme. The residents were satisfied with the easily accessible infrastructure and increased educational opportunities. However, the residents lost access to forest produces and land ownership. The same findings were found for the Bakun resettlement programme (Ahsan et al., 2016). Resettlement programmes made it difficult for the people to continue with their familiar daily activities such as hunting and gathering forest produces. Many of the breadwinners chose not to settle down in these resettlement areas because they worked as fishermen and hunters while those who stayed chose agriculture as their new source of income.

Even though certain resettlement programmes gave positive impacts, most of them caused negative ones, especially in the socio-economic aspect. The people experience job loss, property loss, poor infrastructure provision and cultural value loss. These impacts were due to the lack of commitment by the programme implementers when the resettlement programmes were carried out. Overall, the success or failure of a certain resettlement programme is highly dependent upon the implementer and the community involved. The provision of suitable facilities and infrastructure is important to ensure that the people's needs are met as these are the essence of the quality of life and influence their livelihood.

3. METHODOLOGY

3.1 Study Site

This study was conducted at two Penan resettlement sites, namely Tegulang Resettlement Site and Metalun Resettlement Site. The resettlement near Tegulang River is approximately 60 kilometers whereas the one near Metalun River is about 130 kilometers from the Bintulu-Bakun highway. Figure 1 shows the locality of the study areas on the Sarawak map.

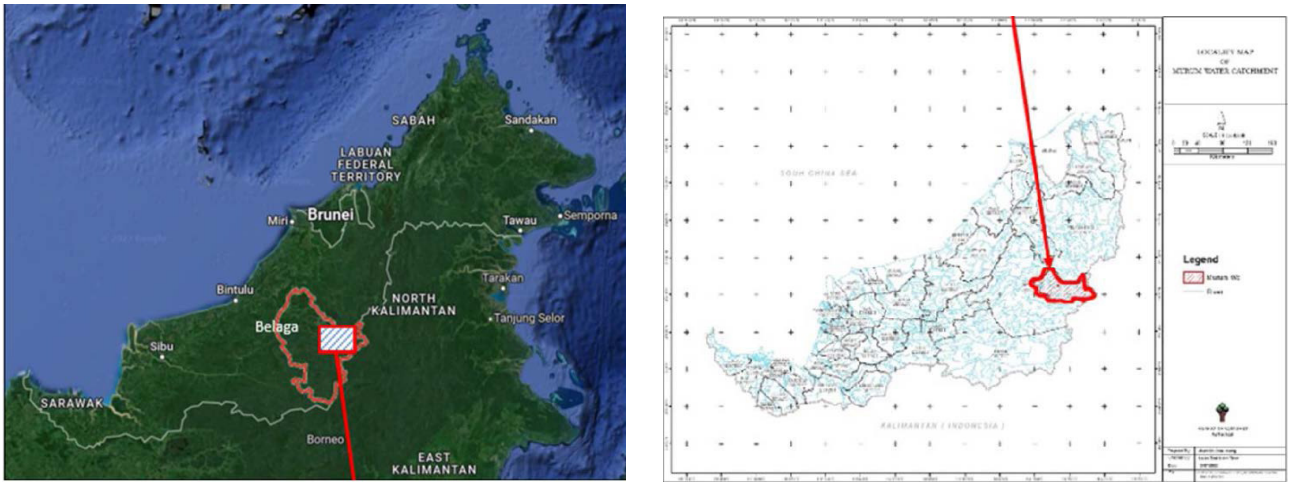

Figure 1
Research Model Location of the study area, Metalun and Tegulang Resettlement Sites, Belaga, Sarawak, Malaysia.

3.2 Data Collection

Data was collected from 269 respondents from six villages. A total of 156 respondents from 4 villages, namely Long Luar, Long Menapa, Long Tangau and Long Singu were from Metalun Resettlement Site. The respondents from Tegulang consisted of 113 respondents from 2 villages, Long Waat and Long Malim. Three techniques of data collection were used, they were questionnaires, in-depth interviews and site observations. Primary data consists of a set of questionnaires being distributed to head of households. It also included in-depth interviews and site observations that were conducted to gather additional and detailed information. Secondary data were collected throughs journals, articles and governmental records. This research relied on primary data collected through structured questionnaires, in-depth interviews and physical observations derived from the level of satisfaction with infrastructural facilities at the resettlement sites. Table 1 shows the number of samples collected from each village where the respondents were asked to select the options that correspond with their level of satisfaction based on the specific infrastructure service as mentioned earlier.

The study is a social impact study based on the people affected by the resettlement programme following the construction of Murum Dam. In general, social impact changes the living conditions as a result of a new policy or programme undertaken by the government, semi-government, or non-government that involves changes either directly or indirectly until new social characteristics are formed either better or less well than the original situation (Abdullah et al., 2003).

The identification of socio-economic effects was made through a list of criteria or indicators, such as

quality of life that must be different before and after the resettlement programme was implemented. In examining and evaluating the changes that have taken place on these effects, research needs to be done. This means that families or individuals involved either within the area or its surroundings need to be interviewed (Abdullah et al., 2003). Analyzing the changes that occur to the indicators before and after can identify the effects or impacts as a result of the projects that have been implemented. These changes may be positive and may also be negative. Positive effects are the most needed and negative ones need to be prevented and converted into positive effects (Bunnel, T. & et al., 2002).

Samplings in this study was done in two Murum Resettlement Sites (MRS). MRS is divided into two based on the resettlement locations. Metalun resettlement is located about 320km from Bintulu town or 150 km from Belaga town. It is situated upstream of the Murum Dam and is also about 120km from the main dam. This resettlement consists of four Penan villages, known as Long Menapa, Long Luar, Long Singu and Long Tangau. The Tegulang resettlement is located 250km from Bintulu Town and 90km from Belaga town. It is located about 10km from the main dam of Murum Dam. In general, there are three villages in this area, namely Long Waat, Penan Long Malim and Kenyah Long Malim. However, this study only focuses on the villages inhabited by the Penans, namely Long Waat village and Long Malim Penan village.

The head of the household in both Metalun and Tegulang communities served as the sampling population for this study. Purposive sampling is also used in the sampling of this group based on certain factors. The respondents were the local community that was relocated to MRS following the construction of the Murum Dam. This is to ensure that the respondents have a clear picture of their socio-economic performance both before and after the resettlement programme.

Table 1
Number of Respondents

Resettlement site	Village	No. of respondents	Percentage (%)
Metalun	Long Menapa	32	11.9
	Long Luar	45	16.7
	Long Tangau	28	10.4
	Long Singu	51	19.0
Tegulang	Long Malim	41	15.2
	Long Wat	72	26.8
Total		269	100.0

The primary data obtained were household income, homeownership, saving, investment, property ownership, land ownership, level of education, job opportunities, basic facilities (utilities), public facilities, neighbourly relations and organized participation. All these data were obtained through surveys, interviews and field observations.

3.3 Data Analysis

A total of 24 socio-economic aspects were asked through a questionnaire. These aspects were evaluated by using options from one (1) to four (4) as shown in table 2. Options 1 = declined, 2 = remain bad, 3 = remain good, 4 = improved. This aims to assess the socio-economic performance of the respondents more easily based on their experiences and views. Data collected were analyzed using the quantitative descriptive method.

Table 2
Performance score rating

No.	Scale	Rating
1	Declined	1
2	Still in bad condition	2
3	Still in good condition	3
4	Improved	4

4. RESULTS AND DISCUSSION

4.1 Sociodemographic Profile

Table 3 shows the sociodemographic profile of respondents in Tegulang and Metalun that were interviewed through the questionnaire survey. Majority of the respondents (48%) are aged between 25-34 years old. This age group was followed by those between 35-44 years old (36.4%), 45-54 (8.9%), 15-24 (5.6%) while the least was (1.1%) by those between 55-64 years old. Out of the total number of respondents, 96.3% were men while the rest were women. Most of the respondents, 97% were married. Respondents who were single made up 1.9% while the rest were divorcees.

Findings also found that majority of the respondents have no formal education, which is 83.3%. 14.1% of the respondents have primary level education while only 2.6% have been to secondary school. None of the respondents have been to college or university. Based on their occupation background, 43.1% were self-employed, followed by 33.5% who worked in oil palm plantations, 10.4% worked other fields and 6.3% worked with logging companies. Beside, a total of 2.6% were government servants. The findings also reveal that 44.2% of the respondents had monthly incomes that were RM500 and below while 38.7% of respondents earned between RM501-RM1000 monthly, 14.5% respondents earned between RM1001-RM1,500 while 2.6% respondents earned between RM1,501-RM2,000. None of them earned RM2,000 and above.

Table 3
Sociodemographic Profile of Respondents

Demography	Criteria	No. of Respondents	Percentage (%)
Age	15-24 years	15	5.6
	25-34 years	129	48.0
	35-44 years	98	36.4
	45-54 years	24	8.9
	55-64 years	3	1.1
Gender	Male	240	89.2
	Female	29	10.8
Marital status	Single	5	1.9
	Married	261	97.0
	Divorced	3	1.1
Education level	No formal education	224	83.3
	Primary school	38	14.1
	Secondary school	7	2.6
	College/University	0	0
Main Job	Self-employed	126	43.1
	Working at a timber company	18	6.3
	Working at a plantation company	90	33.5
	Government servant	7	2.6
	Others	28	10.4
Monthly income	RM500 and below	104	38.7
	RM501-RM1,000	119	44.2
	RM1,001-RM1,500	39	14.5
	RM1,501-RM2,000	7	2.6
	RM2,000 and above	0	0

4.2 Socio-Economic Performance at Metalun Resettlement Site

Table 4 shows the socio-economic performance of the population in Metalun resettlement. Out of 24 aspects that were selected, a total of 11 socio-economic aspects were found to have improved well. The aspects that showed improvements were homeownership, income, property ownership, employment, skill level, knowledge, educational facilities, electricity, roads, communication facilities, houses of worship and recreational facilities. Two aspects that remained good both before and after being in resettlement were resident safety and neighbourly relations. Four aspects that were declining were land ownership, access to forest resources, clean water resources and air quality. The aspects that remained bad either before or after being relocated to the resettlement were savings, investment, level of education, transportation facilities, health facilities, business facilities and organized participation.

Table 4
The Socio-economic Performance of Penan Community at Metalun Resettlement Site

No.	Socio-economic aspect	Overall performance			
		Declined	Still bad	Still good	Improved
1	Homeownership				√
2	Land ownership	√			
3	Household income				√
4	Saving		√		
5	Investment		√		
6	Property ownership				√
7	Job opportunities				√
8	Access to forest resources	√			
9	Level of education		√		
10	Level of skill and knowledge				√
11	Educational facilities				√
12	Clean water source	√			
13	Electricity supply				√
14	Transportation facilities		√		
15	Road accessibility				√
16	Air quality	√			
17	Religious building				√
18	Communication facilities				√
19	Security			√	
20	Sports/recreation facilities				√
21	Health facilities		√		
22	Business facilities		√		
23	Neighbourly relations			√	
24	Organized participation		√		

4.3 Socio-Economic Performance at Tegulang Resettlement Site

Table 5 shows the economic performance of those placed at Tegulang resettlement site. Ten (10) out of 24 socio-economic aspects have shown improvements, namely house ownership, property ownership, level of education, level of skills and knowledge, educational facilities, electricity, roads, communication facilities, religious building and recreational facilities. Safety aspects and neighbourly relations were two things that remained good either before or after being placed in the Tegulang resettlement. Four aspects that were found to decline were land ownership, access to forest resources, clean water resources and air quality. However, the aspects that remained bad were household income, savings, investment, employment opportunities, transportation facilities, health facilities, business facilities and organization participation.

Table 5
The Socio-economic Performance of Penan Community at Tegulang Resettlement Site

No.	Socio-economic Aspect	Overall Performance			
		Decline	Still bad	Still good	Improved
1	Homeownership				√
2	Land ownership	√			
3	Household income		√		
4	Saving		√		
5	Investment		√		
6	Property ownership				√
7	Job opportunities		√		
8	Access to forest resources	√			
9	Level of education				√
10	Level of skill and knowledge				√
11	Educational facilities				√
12	Clean water source	√			
13	Electricity supply				√
14	Transportation facilities		√		
15	Road accessibility				√
16	Air quality	√			
17	Religious building				√
18	Communication facilities				√
19	Security			√	
20	Sports/recreation facilities				√
21	Health facilities		√		
22	Business facilities		√		
23	Neighbourly relations			√	
24	Organized participation		√		

Based on the results obtained, a majority of the residents who resided in Metalun and Tegulang resettlement agreed that they owned a better house compared to their old homes. Their previous houses were mostly self -built and some of the longhouses were built by a logging company. The houses at the resettlement are also more spacious and comfortable. In terms of land ownership, a majority of the respondents from both resettlements felt that they had lost their land. Forest areas where they find forest produces and economic sources have been inundated by the Murum Dam. They also claimed that they did not get adequate compensation financially or know of the status of alternative land given to them. Each family were given 3 acres of land but the lands were not clearly divided and there was no land titles that states their ownerships. This situation created conflicts of land use for agriculture among the Penan communities in the resettlement areas.

For the residents who were in Metalun resettlement, most of them agreed that their household income increased while most of the respondents in Tegulang resettlement said that their income remained as bad as before. Those who are in Metalun resettlement have better incomes after working in oil palm plantations near the resettlement. They were offered certain contractual jobs such as tree pruning, fruit cultivating, fruit collecting, driving and so on. This situation is different for those who are in Tegulang resettlement. A majority of the respondents claimed that their source of income remained bad due to no such opportunities as their Metalun counterparts to get better jobs. Job opportunities available near their resettlement area do not allow them to get better jobs due to their lack of education as well as skills. They were unable to work in the public sector or in Sarawak Energy Berhad (SEB) due to limitations in terms of education. This caused them to still depend on forest resources such as selling wild meat, handicrafts, fish and other forest produces as a source of income eventhough these forest resources were found to be declining. Logging activities, oil palm plantations and the construction of dams had caused the forest area getting smaller. This has directly led to their access to forest resources being limited and dwindling.

As for the savings and investment aspects, most of the respondents from these two resettlements agreed that they had no savings or investments. This situation is due to various factors such as financial capability and lack of financial management. They felt that the money they have can only cover their daily needs, education and other basic things. The available money was also needed to buy items that facilitate their livelihood such as motorcycles, outboard engines, televisions, telephones, refrigerators and so on. Thus, they agreed that after relocating to the resettlement, ownership of properties had increased.

Moreover, the respondents who were in the Metalun resettlement claimed that the educational facilities provided in their area were better than before their move. A primary school known as SK Metalun has been established. Previously, the nearest primary school was at SK Lusong Laku which takes about 2-3 hours to travel through logging road. However, awareness level to pursue higher education was still lacking among the Penan community in the Metalun area. Attendance at school and examination results in SK Metalun was still very unsatisfactory. Meanwhile, a majority of the respondents in the Tegulang resettlement area thought that the facilities and level of education of the Penan community in their area have increased greatly. Their settlement area is not far from SK Tegulang and this made it easier for them to send their children to school. This situation was different before Tegulang primary school was built near their area. They also had to send their children to SK Lusong Laku, travelling about 2-3 hours.

Apart from formal education, the skills and knowledge of the residents in both resettlements were found to have improved significantly. Previously, the residents have

never participated in any courses. This situation changed after they were relocated. Multiple courses and training programmes were introduced to the residents, including health care, cleanliness, farming and many more. The courses taught them about planting vegetables, raising chickens, making handicrafts and cooking healthy food to improve their quality of life. Prior to being relocated to the resettlement, most of the respondents only possessed traditional skills and knowledge such as hunting, harvesting forest produce and fishing. Participation in courses, as well as exposure given by various parties, have provided opportunities for them to learn new skills and knowledge. This is a positive thing because the residents can use them to earn a living.

Most of the respondents from the two resettlements agreed that their air quality in the current resettlement is deteriorating when compared to their original home. They were surrounded by jungle and breathed fresh air. At present, the air in their area is slightly degraded due to the development around them. Smoke emissions from factories, as well as dust from the road were said to cause air quality to deteriorate in their new home. The results also showed that clean water supply in the two resettlement areas has declined. The water supply for both resettlement areas was sourced through gravity feed from nearby hills. Mini water dams were built that then supplied water through water pipes to the longhouses. However, they still wanted improvement in sourcing water supply because they often got cut-offs or muddy water due to heavy rain. Each time that happened, they needed several weeks to fix the problem because they lacked funds and resources. In the meantime, they had to depend on rainwater which was scarce during the dry season.

The resettlement of Metalun and Tegulang was originally provided as compensation to the Penans affected by the construction of Murum Dam. Indirectly, the relocation programme was used to gather and reorganize the nomadic community that lived scattered in the jungle. This allowed the government to build proper infrastructure and facilities for them, thus able to improve their quality of life. In these resettlements, they have 24-hour electricity supply, primary schools, futsal courts, churches and many more. The facilities provided received different reactions from the community. Some of the facilities or services provided were said to be of poor quality and deemed as unsatisfactory. They commented that these facilities were built just to fulfill requirements and were said to be not much different from before being relocated.

Most of the respondents from both resettlements agreed that the electricity supply now was much better than before. The resettlement areas got electricity supply from SEB GRID and generator sets provided by Sarawak Energy Berhad (SEB). The generators were able to supply 24-hour electricity to the villages. They could also save money because SEB GRID is provided free for them. Previously, they had to buy their own petrol to generate electricity from their generator sets. This was very difficult because the cost of petrol is very high. They only turned on the generator when they really needed it. The food also could not be stored for long in refrigerators unlike now.

The level of cleanliness in terms of the use of toilets was also said to have improved well after moving to the resettlement. Every house has a private toilet for personal use. In addition, waste management in the resettlement areas was better. They had begun to realize the importance of personal and environmental hygiene. However, most of them claimed that the road that connects their resettlement areas with the nearest town was still in poor condition. Those who resided in the Metalun resettlement area still used logging roads or plantation pathways to get to the nearest town. The road connecting the villages to the main road was still in very bad shape, especially on rainy days. Nobody came to fix the roads if they were in need of repair. This made it difficult for them to go to work or send their children to school.

In Tegulang, the residents claimed that the road connecting to the main road was also in very bad condition. That road is about 1 kilometer from the main road. It was very slippery on rainy days and very dusty on hot days. Many of the previously paved roads have been damaged. There were lots of potholes and they did not receive any attention from the local authorities for repair. This poor road condition contributed to the poor transportation system in the resettlement areas. Public transport services were not available in their area due to the long distance from the nearest town. They only relied on private transportation services which were very expensive for them. This situation made it difficult for them to run any errands.

Recreational facilities, places of worship and communication facilities have improved based on the views of the respondents. Every village in the resettlement area has a spacious and comfortable church. Recreational facilities such as football fields, futsal and *sepak takraw* courts were also built in all villages within the resettlement. Residents in both resettlements were able to enjoy internet and phone access. They could use their own phones to communicate with each other. Some of them also used smartphones to surf the internet and had access to social media. This greatly helped them connect to the outside world.

The respondents felt relatively safe in their neighborhood. The influx of outsiders either to work or even to marry some of the residents did not adversely affect them. The outsiders also did not pose a security threat in terms of crime, social problems or even illness to the community. Neighborliness was also found to be as strong as before they moved to the resettlement. Although their houses were remodeled, dividing them into residential blocks, their relationship with one another within their community remained intact. They believed that the neighbourly bond among the community members is their main strength to survive the relocation together.

Health facilities, business facilities as well as participation in organizations are aspects that were still in bad shape. Residents from both settlements still need to go to Belaga town and Sg. Asap if they need medical attention. The journey was still far and required considerable expenses to travel. The distance between Metalun to Sg. Asap is approximately 150 kilometers through the logging road. Eventhough the clinics were perceived as comfortable, the distance to get medical consultation was their main concern, especially during emergencies.

The results of the study stated that they are still not actively involved in any association or organization. The association they had at the time of the study was Village Development and Security Committee (JKK *Kampung*). Only a handful of their community leaders were involved in community development associations. So is their participation in politics, they were still not as actively involved as other communities in Malaysia. None of the political parties were established specifically to develop the Penan community in general and the Murum Penan in particular.

5. CONCLUSION

Overall, the resettlement programme was a good endeavour to enhance the socio-economic status of the rural communities. The establishment of infrastructure facilities in the resettlement sites gave the respondents a chance to have continuous access to infrastructure amenities. In the context of the resettlement of Penan communities affected by Murum Dam, this resettlement programme can enhance the development of rural areas, especially in Sarawak. Its implementation has given a positive impact on the respondents, such as improving their living standards, education levels, skills and many more.

However, the implementation of resettlement programmes has led to the loss of land ownership as happened in China, Ethiopia and Ghana (Jackson and Sleigh, 2000; Zeleke and Asfaw, 2014; Eric, Kotoku and Dzeto, 2014). The same thing has happened in other states within Malaysia, such as Selangor and Sabah where residents have lost their lands after moving to resettlement areas (Zulhilmi and Seow, 2013; Roben and Ubong, 2018). This also happened to the Penan community who relocated to the Murum Resettlement Site (MRS). Those lands they had previously owned and occupied had been submerged by water from Murum Dam. The land provided as compensation is also very limited and not clearly divided. The authorities did not provide land titles, therefore it has raised concerns among the residents in the resettlements. Therefore, this issue needs to be resolved whereby those affected need to be given the final say on the status of land ownership so that they can work on their land without having to worry.

In addition, there are some facilities that need to be built or improved such as roads, health clinics and clean water plants. The current feeder road is still lacking because it has not been paved. It is dusty during drought and very slippery on rainy days, causing inconvenience to both working adults and school children. The construction of clean water plants should also be done as soon as possible because the residents often faced problems whereby the gravity water they used often got cut off due to heavy rain and blockage from mud. The same goes for the construction of clinics within close proximity of the resettlement sites. Clinics need to be built as soon as possible to provide better health services to residents in MRS. This is especially for those who are at MRS Metalun. The construction of clinic is very much needed by them as the existing clinics are too far away. An administrative center should also be built as soon as possible to facilitate community-related affairs so that they do not need to travel to Belaga or Sg. Asap.

The study concludes that most of the residents were satisfied with the resettlement programme. The facilities and infrastructures, including religious buildings, houses, sports facilities and primary schools received good comments. Besides, the study also discovered that electricity, water supply and communication were moderately rated by the respondents. The healthcare and road system however got bad reviews and should not be taken lightly by the government. Both are crucial during emergency situations and the Penans deserved better than this. A key conclusion of the study was that the improvement of facilities and infrastructure as requested by the residents is vital in their overall quality of life. The government should channel more funds to achieve the adequate provision of infrastructure and amenities in Murum Resettlement Sites.

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