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Community Perception towards Impact of Development in Sungai Terengganu

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Abstract

Objective of this study is to identify community perception based on development change at Terengganu River, Malaysia. Development alongside of riverside of Terengganu river give major changes towards physical and environmental impact it has given positive or negative impact towards the community that lives along the riverside. The aim of this research shows that the effect of Terengganu River bank development can be grouped into four principle impacts that were improvement on the riverside design and facility, tourist spot attraction, sustainable environment development and preservation of the natural environment. The discoveries of this article additionally demonstrate the riverbank advancement and natural changes give new move to neighborhood society advantages to produce higher quality and dynamic life. Questionnaire been used in this study are Impact Development River Side on Physical Environment and Human. Questionnaire been divided with 3 section with 10 question in for each question. Data analyzed using Descriptive Statistic on answering objective that been determined which is focus on the impact of the river basin erosion towards the physical changes on the Terengganu River and how it had been impacted to the community. Results from this demonstrates the riverbank advancement and natural changes give new move to neighborhood society advantages to produce higher quality and dynamic life. Researcher suggests that everybody must take part to ensure less negative impact towards the environmental side that will affect to the community later.

Keywords: Perception, Development, River Basin, Environment and Society, Terengganu River.

Introduction

Before the independence till now, river play a major role in human life. Since early

preliminaries, evolving to main city to mega port until it formed world of civilization. For example, the early growth of the main City and the early ports that make up modern civilization to date are like the City of Tourism in Miami and the City of Defense in Fort Collin. The early existence of a settlement at the river's edge is an easy route for trade and commerce to grow and strategically serve as a fortress.

According Toriman et al., (2013), the issue of the river estuary erosion is a long-term problem faced by Malaysian community every monsoon season. At the east coast in particular, in Terengganu, the problem of erosion is not only becoming an important topic among administrators but also among the members of the community who live along the river basin. Typically, erosion is often accompanied by land degradation, land loss and damage of the infrastructure such as roads and buildings (Verburg et al., 2004a).

Uncontrolled development alongside of the river caused many sensitive areas such as inheritance-related areas destroyed throughout the year on making 'Transformation Terengganu Baharu (TTB)'. According Cleere (2005), definition of 'legacy' in the Ancient Treasure Act, 1976 and the National Heritage Act, 2005 summarized legacy as a previous generation whether in the form of sites, objects, cultures, thoughts, philosophies or creativity that exhibit a way of life of a society according to the situation. Kuala Terengganu also known as 'heritage city' because of their unique cultural background landscape shown in physical form (architectural style, layout and settlement arrangement). Rebuilding alongside of the river shown insensitive to local heritage that threaten the value of their history and heritage that made Terengganu beautiful and unique on their way.

In addition, such development will cause the river basin to be easily polluted (Kamarudin et al., 2018a) and shallow, filled with domestic waste and undergo water quality deterioration (Palanaippan et al., 2017). Palanaippan et al., (2017) found that the development activity of the bridges in the Melaka River generally has a physical and non-physical (social well-being) impact. It had been stated that there are many factors that can impact the condition of the river basin. The impact can be categorized as positive and negative. For example, river crossing activities through the reconstruction of land use activities have attracted the presence of tourists and improved water quality.

On the contrary, the negative impact is the increase in noise pollution through the existence of activities throughout the world, the decline of the heritage and the destruction of the environment. Besides the impact on the environment, a little discussion of the effects of river basin development on the setting of the local city. There are many additions in the role of Sungai Terengganu and riverside as the 'environmental treasure' that has undergone changes, either in terms of physical or human, involving the surrounding activities (Pontius & Neeti, 2010).

The Terengganu River's inner circle has its own charm and character. The economic impacts are an important part of the riverside tourism environment. Not all tourists who come to Terengganu River will contribute to the income of the surrounding communities through their taxation transaction, among of the tourists; they have different tastes and motivations as well as other reasons for travelling. Contribution from the tourist have specific through boat toll that been called as house boat in Tasik Kenyir, the beauty of the lake captivated most tourist because Tasik Kenyir also known as one of the main attractions in Terengganu. One of their goals is to make a documentary about the life of a society (Pearce, 2001). The local community is not only thinking about economic resources but rather protecting their communities from negative influences whether from individuals or tourists who come to

Terengganu River. This is because the benefits of the tourism community will change dynamically and interactively with changes in visitors visiting the Terengganu River. The authorities also need to change and improve their level of management according to the change in tourist rates.

In addition, systematic planning and management may affect the long-term impact of the Tourism and Development by targeting the most appropriate visitor segment, which contributes to the lack of a negative impact that affects the local community (Pontius & Neeti, 2010). The inclusion and involvement of communities in the ownership and planning of tourism initiatives in the area will encourage them to achieve benefits to the community such as job opportunities and other benefits that will ensure their future. Even the result of focusing on local institutions and communities can create a sense of contentment to the community and other agencies in government and non-governmental administrations. This is a comfortable zone achieved by community participation in the tourism process from the most important factor in society to receive their collective and individually valuable benefits.

Literature Review

Development and environment are synonyms with the term of growth, progress and urbanization of a certain places. These two terms are really related to each other which brings a significant change towards social, economy and physical of a city (Zaini, 2007). This development gives a big impact towards the environment weather in positive or negative ways (Zaini, 2007). The impact is something that brings a striking impression. The impact of the construction and trimming of the Terengganu River on the layout refers to the restructuring of the layout for business and settlement areas along the Terengganu River (Thomas, 2014). Generally, in Kuala Terengganu, the existence of the river's development directly places more standardize and in a correct order. This systematic form gave a lot of positive influence towards the seller and their array of shops allocates along the river (Carlsen, 2008). Carlsen (2008) also stated that building arrangements and taking care of existing buildings also provide a comfortable environment and attractive views to visitors. Today, many riverside development projects have been implemented throughout Malaysia, especially in Kuala Terengganu Town which involves some Terengganu river areas, partly successful and some fail (Kamarudin et al., 2018b).

In most cases, the implementation of this project is more focused on investments than the interests of society and the environment. In addition, the lack of enforcement of laws and policies in Malaysia, especially to regulate river development has led the country to the impact of environmental and social. Urban planning plays an important role in Malaysia's efforts to achieve developed nation status by 2020. This is the field that drives and regulates land development and plans for the settlement of the population. The Global Planning and Development Doctrine produced in 1995 underscores the principles of more balanced planning practices.

The structural of restructuring impacts of the construction and clearing of the river on the arrangement structure refer to the restructuring of the layout for business and residential areas along the Terengganu River. The layout of the building and the beautification of existing buildings also provide a comfortable environment and attractive views to visitors. The restructuring of this layout involves the transformation of two main components namely the business area and the residential area. Positive impacts on business areas are clearly described as the focus of the public, especially locals and tourists.

Additionally, Larrin (1994) said that the existence of this development opens business and job opportunities to the locals and directly increases revenue. The findings from previous researcher showed that 82 percent of respondents agreed that this riverbank project benefited locals, especially business opportunities. However, the negative impacts that the public's focus on this area is the occurrence of crime and social problems along the river. Meanwhile, for the layout of the housing area, it clearly shows the change of the space of the riverside settlement to other areas. The displacement of the original inhabitants had to be carried out to new areas to provide space for the use of the riverbed for recreation. Development theory in social science can be divided into two major paradigms, modernization and dependence by Lewwellen (1995), Larrin (1994), and Kiely et al., (1995) through Tikson, (2005).

The modernization paradigm encompasses macro theories about economic growth and social change and the micro theories of individual values that lead to the process of change. The dependency paradigm involves the underdevelopment of dependent development and the world system theory in accordance with the classification of Larrain (1994). While Tikson (2005) divides it into three clusters of development theory, namely modernization, backwardness and dependence. From these various paradigms then there are various versions of the concept of development. So far thought of development has evolved, from the perspective of classical sociology (Durkheim, Weber, and Marx), Marxist views, modernization by Rostow, modern structuralism enriching the preliminary development of social development, to sustainable development.

In this regard, development can be construed as an effort to create more legitimate alternatives to every citizen to fulfil and achieve the most useful aspirations of each (Dahuri, 2004). On the definition of development, philosophers provide a diverse definition. The terms of development may be defined by one person with another, one area with another, one state with another country. But in general, there is an agreement that leads to the notion of development as the development is a process for making changes (Riyadi & Bratakusumah, 2005). Siagian (2005) also gives insight into development as a business or a series of growth and change business that is staged and realized consciously by a nation, state and government, towards modernization in nation-building. While Ginanjar (1993) provides a simpler understanding, that is, development as a process of change in a better direction through planned efforts. The understanding of development is often said to be the idea that identifies development with development, development with modernization and industrialization, and even some who consider development to be related to landed elements (Lopez et al., 2001). All of these thoughts are based on aspects of change, where development, evolution, and modernization and industrialization, as a whole contain elements of change

Results and Discussion

In Malaysia, from earliest times, civilizations have been established upon the banks of rivers. In fact, many urban cities in Malaysia (such as Kuala Lumpur, Terengganu, Malacca, Kuantan, Kota Bharu, and Kuching) grew up along the river or river valley (Andaya & Andaya, 2001). After abundance for many years, Malaysia has begun to redevelop waterfront areas (along the riverbank) and Kuching city which is located in Sarawak has been selected to initiate this project. The project was proposed by Chief Minister of Sarawak mainly for recreational purpose in year 1989 and proceeds for development granted in year September 1993. The

project is fully funded by the state government of Sarawak and managed by the Sarawak Economic Development Corporation (SEDC) (Sarawak subsidiary).

Hence, further studies had being conducted to have in depth information on the significance of the river development in Malaysia. By using data from interviewing various groups of respondents, a total of 25 respondents were selected and interviewed. Respondents Selected was based on studies area (namely: Sarawak, Malacca and Selangor). Input were obtained from four different sources: 1) Federal, State and Local Government; 2) Private developers; and 3) Professionals. Respondents interviewed to express the comprehensive issues related with research topic. Figure 1 show, summary the respondent's profile participates in this research including organization, department and specialization.

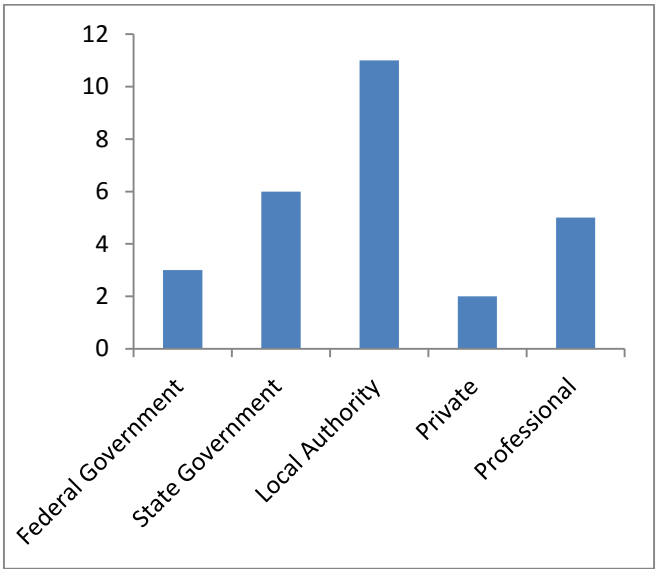

Figure 1: Respondent profile for feedback in river development
Source: Samsudin, (2017)

Figure 1 shows that majority of 25 respondents were from government organizations (92%). Only 8.0 per cent comes from private sector. From this figure, it is clearly shown that waterfront development project in Malaysia is dominated by government. Other than that, respondents participated in this research were from each level of government; federal (12%), state (20%) and local government (40%), and were from management and technical department. Less percentage of respondents from private sector (developer) indicates most of waterfront development projects specifically in front of river area at this time are mostly government project and mainly for public uses.

The conducted interview showed, majority of respondents agreed that river is significantly important and related to human for several reasons. They were believed that river's function and significance value will be remaining important for the entire country for various reasons. Table 1 has summarized the respondent's views on river's significant for human, environment and country in Malaysia.

Table 1: River's significance in Malaysia

River's	Function
• Transportation • Trading • Port of activities • Water • Source of food • Country's defend • Habitat • Valuable assets	• Ecology • Human settlement • Drainage and Discharge • Agriculture • Hydroelectric • Recreational • Tourism

Source: Haliza & Hassan (2007).

In fact, a respondent believes that Malaysia will never have a glorious history in the past without the existence of the river. For an example, Malacca state established after settler and trader (from Gujerat, Arab, China, and Europe) settled for trading. During the time river was the reason for colonization and was a busiest place for cater trading and maritime industry (Danced, 1998). Apart from that, Table 2 below shows the attributes for the transformation (revealed from the interview has been conducted) of waterfront development in Malaysia.

Table 2: Factors of river function declination in Malaysia Mohamed et al., (2002).

Factors	Frequency	Percentage (%)
• Development	8	32
• Redevelopment	8	32
• Industrialization	6	24
• Increase Population	6	24
• City sprawl	6	24
• Upgrading transportation system	5	20
• Urbanization	5	20
• Improve quality of life	4	16
• Resettlement programs	4	16
• Environmental awareness	4	16
• Modernization	3	12
• Tourism	3	12
• Preservation of natural resources	2	8
• Conservation of national and heritage value	2	8
• Regulation	1	4
• Lack of available land	1	4

Source: Mohamed et al., (2002).

Table 2 clearly indicates development and redevelopment process was the major contributor towards declining waterfront in Malaysia (32% each). In year 2000, more than 50 % of Malaysia's areas were developed and urbanized and this is an evident of waterfront lost their goriest days and remaining history. Presently, many dirty and stinking channels have been transformed into a waterway of lights and colour when waterfront and riverfront redevelopment were completed. Extensive work that has been implied by government towards riverfront redevelopment and river beautification indicates government effort towards maintaining river as a valuable asset of the country.

Based on a previous research done by Zaini (2007), showed that 86% of Malay respondents, 90% of Chinese respondents and 80% of Indian respondents agreed on development activity

gave impact towards the environment. Respondents agreed that development and changes should happened in order to have a better urbanization of the city. Other three perception are shown at the Table 3.

Table 3: Respondents perception based on ethnicity towards the impact of development on environment and human wellbeing.

Respondent perception	Ethnicity (%)		
	Malay	Chinese	Indian
Development activity gave impact towards environment.	86	90	80
Development activity gave impact towards human wellbeing.	80	100	80
Environment that need to be sacrificed for development of a project.	83	40	80

Source: Zaini (2007)

This study shown that both development and environment related to each other. This happened when a city going through a urbanization process, the environment of the city also going through a changes along with the urbanization of the city (Zaini, 2007).

The development of riverside in Terengganu definitely give a lot of benefits and loss especially towards the development and improvement of the quality of life in Terengganu and Terengganu River. This rapid improvement sometimes changes the perceptions of the community towards the development of the riverside. Zaini (2007) stated that community tends to conclude that when development of a places improves, it helps to gain the economy of the places as well. As in economy, the level of socioeconomic and job opportunities might grow. This matter also influences in decreasing the number of poverty and poor people. Besides, this development also gives a negative impact towards nature and environment. The quality of water turns bad when the development happens in water and at the riverbank. If this issue happens, the income of the fisherman involved might affected (Set et al., 2015). The authorities really need to restructure their urban planning in order to prevent the issues stated occur.

The challenge of urban planning in the 21st century is to ensure that every type of planning guarantees the well-being of its community, taking into account the increasingly limited resources of the nation as well as the need for continuous development. The emphasis on the social aspects of this community is supported by the country's social policy launched in 2003. The objective of this policy is to ensure that individuals, families and communities regardless of ethnic, religious, cultural, gender and political affiliation and territory can participate and contribute to the flow of state development. Development should be differentiated by growth. Growth is often linked with the economic system and quantitative development while development is more qualitative. "Incorporating notions of improvement and progress and including cultural and social, as well as economic dimensions". One of the goals of sustainable development is to ensure social equity, "to prevent any development that increases the gap between rich and poor, asides their socioeconomics group to encourage development that reduces social inequity" (Blowers et al., 1993). Therefore, every designed and implemented development should be more comprehensive and reach more than just

material dimensions. "... development must be aimed at achieving all human rights ideal that can be formulated as prosperity, sovereignty, freedom, justice, perfection and peace for now and in the future in all aspects of humanity" (Aburas et al., 2015).

Recent study in Melaka shows that, environment and development are two things that are so synonymous with urbanization in a given area. Every development that exists will have a direct impact on the environment (Danced, 1998). The impact of either positive and negative, or maximum and minimum depends on the management and control measures to be taken by the relevant authorities. In the context of the construction and relocation of the Malacca River, both impacts have been identified.

The positive impact on the quality of the environment is clearly indicated by the existence of collection bins for waste. In addition, positive impacts can also be seen through the river's interior activities. This activity has successfully restored mud and silt in the river. Subsequently, the river frontage can be seen with natural vegetation such as the Spice Garden. It has indirectly encouraged the cultivation of trees not only along the banks of the river, but also in the presence of clusters of green areas that act as shades and can mitigate micro temperatures in the river basin.

Other than that, there were also some negative impact had being recorded as a case study from the Melaka river. Further, the negative impact of the riverfront construction is on the rise in noise, especially from nightclubs that grow like mushrooms on the banks of the river. For example, a comparison of busy areas around the Red Building and the Spice Park shows that the average night-time readings are 71.45 dBA and 53.57 dBA, respectively. Average reading shown during the day was 65.71 dBA (Red Building) and 58.10 dBA (Spice Park) as shown in Figure 2.

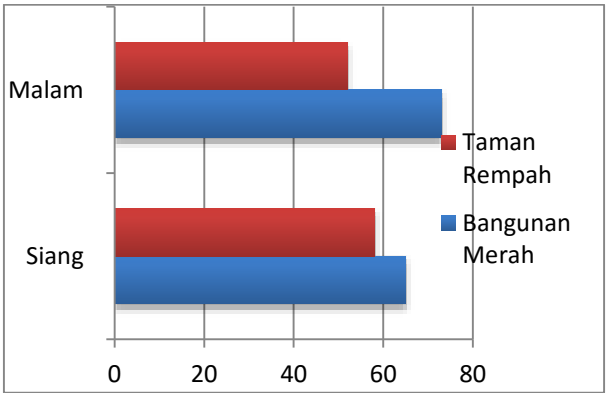

Figure 2: Average of noise level recorded from the riverfront in Melaka
Source: Zaini (2007)

Purchasing and settlements activities along the river also causing the problem of solid waste, especially floating solid waste. It was found that some traders kept dumping waste from their premises as well. Research been monitoring floating waste was carried out at two different observation times during high tide and low tide at two different station locations. It shows higher floating waste volume in the upstream part of the river. Figure 3 shows the quantity of floating waste monitored at the Marine Police Jetty (river estuary) station. The highest floating residue was dominated by floating leaves (410 units) at high tide.

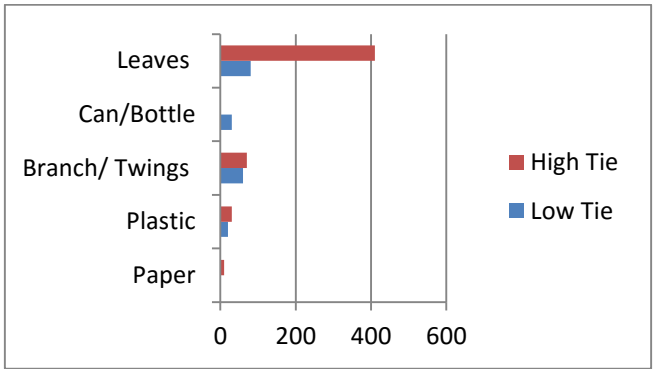

Figure 3: Collection of waste during high and low tide
Source: Zaini, (2007).

While monitoring at the upstream location of the river (Hang Tuah Bridge) station (Figure 4) showed the highest average floating waste volume was at low tide (1266 units) compared to high tide (164 units). Natural residues still show the highest reading compared to floating waste generated through human activities. For an example, 1068 units leftover from leaves and 146 units (plastic) are from man-made. Figure 4 shows the quantity of floating waste by type monitored during high tide and low tide at Hang Tuang Bridge (upstream) station. The total volume of floating waste monitored in the upstream area showed a high reading compared to the quantity monitored in the river estuary, which is 1430 units (upstream) and 673 units (river mouth). This phenomenon clearly indicates that floating waste collection activities are effective in the management of floating waste in the Melaka River as continuous collection of river flows causes the quantity of floating waste collected to decrease.

Conclusion

In conclusion, development and physical changes of surrounding are importance for society to generate a better and dynamic quality of life. Development activity at river bank brings an impact for each not only limited to physical environments changes, but also effect towards human and social well-being. Therefore, the impact of construction and beautification of Terengganu River in this study shows that rebuilding the design, vacationer's fascination, framework advancement and the natural quality. The changes and decline of the impact that has been generated cannot be avoided to face the rapidness of development in order to fill people' need and daily demands. To minimize the impact of river bank development, a systematic environmental management which monitored continuously to keep a balance between development and prosperity of the environments and river bank to stay protected.

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