

# WATERFRONT REGENERATION: A TOOL TO REVERSE THE DECLINING RIVERFRONT IN LIMBANG, SARAWAK

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As a result of modernisation and globalisation, there is growing concern to regenerate decayed parts of the cities. Urban regeneration often takes place in areas such as existing waterfront development, historic preservation sites, reutilising abandoned or decayed buildings and also on-site that is situated at central residential or commercial areas with high human activity. In Malaysia, urban regeneration at the waterfront and coastal towns are still in the early stage of development although numerous attempts have been made by the local council and state governments to revitalise riverfront towns in Malaysia. This paper aims at exploring the concept of waterfront regeneration and its strategies as tools for the regeneration of small riverfront cities and towns in Malaysia. To further carry out this research Limbang, Sarawak has been selected as the case study area. The research methodology is based on the identification of problem supported by research questions and objectives. The major findings of this research paper indicate that urban regeneration at waterfront area can enhance the socio-economic and cultural environments when based on integrated urban planning. The introduction of waterfront regeneration development will involve stakeholders and benefit the local community while creating a unique sense of place and image for the declining town. The findings of this study reveal that improving the sense of place and introducing placemaking techniques benefits the community and play an important role in urban regeneration.

**Keywords**: Urban decay, Urban regeneration, Waterfront regeneration, Riverfront town

#### 1. INTRODUCTION

According to the United Nations sources, more than half of the world's population now concentrated at urban city centres (United Nations, 2018). Malaysia is no exception to this phenomenon, with approximate 70% of Malaysian are now residing in urban areas last few years. However, it is expected by 2030, Malaysia will have around 80% of Malaysians to be city dwellers, and population displacement will cause a major impact on the small cities and towns in Malaysia. Even as we speak, little attention is given to the issue of the declining riverfront towns

in Malaysia. In the past, the rivers served as main transport corridors driving the local economy. However, today the river transport has been replaced by road transport and air freight. As a result, the importance of the rivers as the main economic driver has drastically declined. However, small cities and towns in Malaysia are still home to nearly 7 million people, and about 3 million of them are currently still occupied in 46 remote districts in Peninsular Malaysia, Sarawak and Sabah (Henzri Adnan 2019).

Until now, the government are still facing difficulties in improving the town infrastructures

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in terms of accessibility, socio-economic and viability. In 1994, the government had introduced the "New Philosophy and Strategy for Rural Development" for the towns, in which they shifted their focus to the empowerment of the community and its people instead of just infrastructure development. Programmes such as "Visionary Village Movement" were implemented to transform rural areas into more inviting and beneficial places for living.

The government also attempted to have the youths to remain in their respective towns by introducing the 21st Century Village program, a policy that is focusing on rural tourism. According to Hezri Adnan (2019), the town's homestay programme alone had generated more than RM15 million back in 2011, which is run by local town operators in the town areas. Therefore, balancing an urban city and town area is crucial as Malaysia will soon hit its 80% urbanisation mark. Thus, it is important to exploit the diversity of socio-economic and cultural conditions in each town first and later formulate development policies and implement the strategies across different towns of the states.

According to Torre (1989), it is said that the elements of a successful waterfront development require theme, image, authenticity, function, public perception of need and many more. Hence, this paper will study how urban regeneration can reverse the socio-economic and physical decline of waterfront places. The case study area for this research, the Limbang District is located in Sarawak near a large national park Taman Tasik Bukit Mas, on the banks of the Limbang River (Latlong 2019). Limbang is sandwiched on the western and eastern side by the Sultanate of Brunei. It was part of Brunei; however, as a result of the rebellion in the 1880s it was ceded to Sarawak, and since then it remains a rather isolated part of Malaysian Borneo (Crisswell 1971).

The primary land access to Limbang is through Brunei as there no roads connecting the southern part of the district to Sarawak. Alternative access to Limbang is via water from Labuan and using the river network from Brunei. The largest city of the Limbang District is Bandar Limbang (Limbang Town) with a population of 60,000. Similar to the other parts of Sarawak, the

population of Limbang is diverse. The major groups include the Malays, the Kedayans, the Lun Bawangs, the Chinese, the Bisayas and the Ibans, with smaller numbers of Bidayuhs, Kelabits, Melanaus, Penans, Tabuns and Tagals (Borneo Post 2017).

Bandar Limbang is located directly along the Limbang River. The centre of the town is Limbang Plaza. The Plaza, also located along the river, has three main components - the Purnama Hotel, the shopping mall and a host of government offices. The main food market of the town is situated next to Limbang Plaza with direct access to the river. In the past, the economy of Limbang was closely associated with the Limbang River. The main access from Brunei to Limbang was by water through the network of rivers. There was a ferry cruising between Bandar Brunei (now Bandar Seri Begawan) and Bandar Limbang on a daily basis. Bandar Limbang also had a vibrant floating market which was the main retail activity node of the town. With the development of the road system and road transport and the introduction of air links to other parts of Sarawak and Sabah, the importance of the Limbang River drastically declined. As a result, the waterfront in Limbang became obsolete with many dilapidating buildings and structures. However, the ferry transport to the Federal Territory of Labuan has been retained. A map showing the location of Limbang in the context of Brunei and in relation to the network of local rivers is shown in Figure 1.



Figure 1: show the blue link connection of Limbang

Source: Malaysia Inland Water Way Transport System in Sarawak by UNDP

With Limbang's unique geographical segmentation, in terms of the quality of the built environment, there is a distinct gap between nearby Bandar Seri Begawan, the capital of

Brunei, and Bandar Limbang. This gap in favour of Bandar Seri Begawan has a detrimental impact on the local economy and image of Bandar Limbang (Oktay, 2009; Hoskara & Doratli, 2007).

### 2. LIMBANG WATERFRONT REDEVELOPMENT PROJECT

In order to stimulate the local economy and improve the image of Bandar Limbang, the Government of Sarawak together with the local authority has embarked on an ambitious project aimed and regenerating the waterfront in Bandar Limbang's town centre. According to (Mahadi, 2019) the Limbang riverfront redevelopment project will provide many recreational facilities with more than 400 parking lots under the project. It seems that the government has prioritised vehicular accessibility at the cost of a pedestrianenvironment. Providing friendly massive numbers of car parks along waterfront area is not a recipe for a community-friendly, sustainable and successful waterfront transformation. Aerial images of the existing Limbang waterfront is shown in Figures 2 and 3 below.



Figure 2: An aerial view of Bandar Limbang and its relation to the Limbang River.

Source: Lan@PhotoVideo



Figure 3: Aerial view of Bandar Limbang and its relation to the steep topography in the hinterland and the Limbang River.

Source: Discover Limbang

### 3. DEFINING WATERFRONT DEVELOPMENT

Generally, the waterfront is described as the interface zone between the urban area and water body. Traditionally most of the urban settlements were located on the edge of a water body along the coastline or riverbank. Lynch 1960 identifies that the river in the urban area can be either a path or serve as the edge of the city. According to Breen & Rigby (1994, p. 10), the waterfront is the water's edge situated along with the towns and cities. It can be a river, ocean, lake, or even a canal. Besides that, Zhang (2002) differentiates the waterfront as an area which involves activities that interact land with water.

In fact, some riverfront towns hold the most attractive water features of a human settlement (Rozaly, Wahab, Asri, & Shukri, 2017). In most countries, major developments were always started on the land within the proximity of a water body rather than in inland areas. According to Hussein (2006), the riverfront is an area that is reserved for the water-land interaction purpose, while Dong (2004) states that a waterfront is a land fronting on to water. However, researchers use other terms such as harbour front, wharf, riverside, river edge and riverfront (Hoyle, 2002; Hussein, 2006; Watson, 1986; Roy Mann, 1973). Based on the information above the best definition for waterfront development is a development that has its main frontage along the water.

# 4. SIGNIFICANT OF WATERFRONT REGENERATION

According to (Stephens, Kozlowski and Ujang 2015) the redevelopment of post-industrial disused and decaying urban waterfront areas has been triggered by a range of economic, social, and environmental goals. Existing research into flagship waterfront development projects in European, American and Australian cities highlights three key representational aims. Firstly, transformed waterfronts significantly contribute to improving the image of the surrounding urban areas. The redevelopment of industrial waterfronts for new residential, commercial, and leisure uses are a common characteristic of the

new post-industrial economy. Finally, waterfront redevelopment is often associated with enhanced environments and as such target's specific clientele and income groups. As a result, there are criticisms of the limited benefits of such waterfront transformations for medium and low-income social groups. In Asia, waterfront developments try to introduce a new sense of place and identity to the urban locality (Stephens, Kozlowski and Ujang 2015).

Malaysia is considered as a water-rich nation due to the number of rivers running through urban areas and offering economic opportunities for towns and cities. Looking at the geographical aspect, many rivers in Malaysia flow from the northern to the southern part of the country. Since the early human settlements on the Malaysian Peninsular and in Borneo, many towns and cities were established near the water body such as the river or the harbour. In the past, the various waterways served as the main transport routes., There is no doubt that the rivers are still important for the urban community and its local economy. In terms of the local economy, the rivers still can provide a transport route as well as become a tourist attraction by providing leisure and recreational activities.

It is the existence of rivers that significantly contributed to the growth and development of major cities in Malaysia, including Kuala Lumpur (Abu Latip, Heath and Liew 2009). However, the implementation of waterfront redevelopment strategies does not necessarily result in successful outcomes. Depending on their character, every city and its waterfront should be perceived differently while the general strategies and policies should serve as a reference point for alternative approaches and preparation steps. An analysis of contemporary Malaysian waterfront conducted by Stephens, Kozlowski and Ujang (2015) revealed that the majority of them lack learning from their own local spaces and traditions and developing new, distinctive paradigms. However, there are successful waterfronts in Malaysia with the regeneration of Melaka Riverfront as the best showcase example.

# 5. BENEFIT OF WATERFRONT DEVELOPMENT

Despite some criticism, many decisionmakers in urban management believe that waterfront regeneration is a very good incentive for coastal and river towns and cities in boosting their economies. Below are some of the advantages of what a waterfront regeneration can offer: (Papatheochari, 2011)

- The rise in property values
- The revitalisation of economic investment in degraded areas
- Increase in the number of visitors and tourists
- Improvement on the waterfront and water quality
- Historical heritage preservation
- The improvement of the city's image which attracts multiple investors and stakeholders
- Availability of better transport services, blue links, social services, etc. (Jones, 1998).

# 6. PROVIDING PLACE ATTACHMENT

Places are made up of physical form, activity and meaning (Montgomery, 1998). Meaning is associated with an individual's internal psychological and social processes (Stokol and Shumaker, 1981, Stedman, 2002) that generate perception. Since the psychological process produces one's affective perception (meanings and attachments) rooted within the setting. The place's identity, embedded within environment, is defined not only by the physical components but also by the significance and connection between people and places. To a certain degree, understanding how perceptions and emotional connections to place can relate to community social cohesion, organised participation, and community development is essential. The feelings, thoughts and beliefs about the places, is a phenomenon known as "intrapsychic". It affects the impact of human behaviours toward a place, thus influencing the reaction of people, of how they react to the place.

Place attachment is an affective bond between people and the places (Altman and Low, 1992).

It has also been linked to the community in regard to the revitalisation efforts (Brown, Perkins, and Brown 2003). Henceforth, place attachment is a perfect bonding agent not only it can influence individual behaviour but also group behaviour and its communities. With that, it can be said that the image of the place is an essential ingredient when it comes to placing attachment. According to Chapman & Lynch, 1962, Kevin Lynch's Imageability is known as the physical qualities which relate to the attributes of identity and structure in the mental image. The quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, colour, or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment. He also states that there are five elements which people use to construct their mental image of a city which is pathways, districts, edges, landmarks and nodes.

# 7. INTRODUCING PLACEMAKING TECHNIQUES

First and foremost, there are many definitions of what placemaking is, but we all can agree that placemaking is a tool to improve the physical and socio-economic quality of the place. It aims to create a quality place targetting all end-users. Wyckoff, 2014 define placemaking is the process of creating quality places that people want to live, work, play and learn in. (Wyckoff, 2014) According to PPS (2004) placemaking encourages people to collectively reimagine and reinvent public spaces and strengthen the visual, physical and psychological link between the people and the public realm. By strengthening the connection between people and the public places, placemaking promotes a collaborative process by which individual members of the community shape their public realm to maximise its shared value.

Placemaking promotes better urban design, facilitates creative use patterns, emphasising on the physical, cultural, and social identities that define a place and support its ongoing evolution. Therefore, it provides to the communities identity and image, and inevitably this attracts new people,

industries, and even investment. The cities also require strong community destinations that attract both locals and foreigner. These destinations can either be an open plaza, a waterfront, a park, the main street or a cultural centre. A successful destination is that it has multiple places within it to make prosperity and able to self-sustain. For example, an open space requires at least ten places: a café, a park for children, a drinking spot, a sitting place or a meeting place for friends. Then again, within each place, there should be at least ten types of activities to do. Cumulatively, these activities, locations and destinations are the most important elements of how to make a great city or place. Based on PPS, (2004), this strategy is known as the "Power of 10+." (Project for Public Spaces (PPS), 2004). Most great places regardless of their setting and programs, they share similar four key attributes:

- The places are open and well connected to other important locations in the area.
- The atmosphere is relaxed and projecting a good image for its community.
- The place can attract people to participate in activities.
- The places are sociable where people would want to gather and visit repeatedly.

### 8. IMPROVING TOURIST EXPERIENCE

In many instances, 'waterfront developments targeting tourists rather than local residents; therefore, tourism experience and perception are critical. Searching for meaning is one of the most important things for people, so significant 'that Frankl (1992: 105) describes it as the primary motivation in one's personal life. Therefore, the significance of urban spaces and heritage should not be underestimated when discussing tourist experience. Leisure is not only a search for enjoyment or fun, but it is also a quest for meaning (Ragheb, 1996: 249). Hannabus (1999: 299) argues that tourists are not only looking for things that vary from their daily lives but also the meaning and authenticity of their holiday.

Cohen (1979) develops and distinguishes the typology of tourist experiences into five modes of

tourist experiences. He organised these modes in an ascending order motivated by 'pleasure 'from the most ' superficial ' to the most ' profound ' motivated by the search for meaning. Cohen is aware that each tourist may experience different modes of travel but presents them for analytical purposes separately. In other words, these five modes can be divided into two subgroups which are; those for which the site does not involve meaning (namely 'recreational' 'diversionary') and those for which meaning has a crucial role in the tourist's experience (namely 'experiential', 'experimental' and 'existential'). According to Ebejer (2018) in the 'recreational' mode, the trip allows the tourist to restore their physical and mental powers and improve their overall sense of well-being.

While in the 'diversionary' mode, the tourist is escaping from everyday life and enjoying the uniqueness of his/her's holiday. On the other hand, the 'experiential' mode involves the quest for meaning outside the confines of one's society. It is, to some degree, stimulated by isolation and loss of credibility at home. Cohen also states the comparisons between 'experiential' mode and the religious pilgrimage in which both involve an authentic search for what is perceived. However, in the perspective of tourism, the authenticity will not provide new meaning and guidance, even though it may reassure and uplift the tourist. Then, the 'Experimental' mode involves an attempt to rediscover oneself in different contexts due to alienation would have a profound impact on one's experience. 'Existential' mode involves the search for a better world elsewhere as a result of living in the wrong place and at the wrong time (Lengkeek, 2001).

### 9. ENHANCING THE URBAN LIVEABILITY

The elements of urban liveability consist of 2 key elements. The first element is whether the city is able to sustain and provide the necessity of its dwellers. The second element is whether the city's environment has the necessary elements to sustain the lives and livelihood of its residents (Ruth & Franklin, 2014). Sanders, Zuidgeest and Geurs, (2015) imply that the high levels of personal motorised traffic in Hanoi, the capital city of Vietnam is citing congestion, noise pollution, air

quality, traffic safety as negatively impacting to the well-being of the people. A Principal Component Analysis (PCA) shows that the residents who live in low traffic volume streets experience less traffic hazard and stress than those who live within high traffic volume streets, which make the low traffic volume street more liveable than the high traffic volume streets.

Furthermore, environmental issues another major factor in evaluating the quality of life (Viglia et al., 2017), where concerns are raised on carbon footprint (Joffe & Smith, 2016) and waste management (Moh & Abd Manaf, 2014). Like the Bruntland Commission's definition of sustainability, the idea of livability includes the ability of a community to meet "the needs of the present without compromising the ability of generations to meet their future needs" (World Commission and Environment and Development, 1987). Crime rates in urban areas will also cause a negative impact on the quality of life. Faria, Ogura and Sachsida (2013) state that the type of housing and economic activities would also influence crime rates in the cities.

Interestingly, this study also highlights that a proper city planning does not necessarily address the issue of crime in cities as town planning alone is not sufficient to address crime rates in the cities, it needs to work with other disciplines such as social policies in order to deal with the problem more effectively. Urban planning is crucial when it comes to ensuring the betterment of the quality of urban life as poor urban development could contribute to the negative impact on urban quality of life (Balducci & Checchi, 2009; Serag El Din et al., 2013). As highlighted above, there is a wide range of policies on urban development in Malaysia. This raises concern on the difficulties in comprehensively analysing all of these policies. To address this problem, it is essential to focus on the most current policy directions for urban development, the City Competitiveness Master Plans (CCMP) under the Eleventh Malaysia Plan from 2016 to 2020 (Economic Planning Unit, 2015) as our point of reference.

#### 10. CONCLUSION

Based on the readings and understanding obtained from the literature review, field surveys, and observations the waterfront transformation in

Malaysia has still not fully matured despite some successful examples such as the regeneration of the Melaka Riverfront. Bandar Limbang has always been strongly associated with Sungai Limbang (Limbang River) which runs through the heart of the town. In the past, this river was a valuable source driving the town's economy and also its major physical connectivity to Brunei and other parts of Borneo. Introducing a waterfront transformation project along Sungai Limbang will reinforce the place attachment between the town centre and the river and further reinstate the sense of belonging for the local residents. Placemaking is one of the tools used in the Limbang waterfront project. However, this project cannot be labelled as sustainable as it gives priority to the car movement and not to the pedestrians and cyclists. The project is a missed opportunity as it fails to create a pedestrian-friendly zone in the town centre and has not proposed a pedestrian/cycling green bridge connecting to the traditional water villages located on the opposite side of the river.

The regeneration of the Bandar Limbang waterfront will create a new major tourist attraction mainly targeting the citizens of nearby as well as expats working in the country. It will improve the quality of life to the residents as it will create a newly enhanced waterfront area in the town centre. With the arrivals of tourists, it will stimulate the local economy. Furthermore, the Sarawak government also started to make a move in redeveloping Limbang as a tourist destination. It is envisaged that the planned waterfront redevelopment is expected to create the longest waterfront in Sarawak by 2021. The other reason for the Sarawak government to turn its attention to Limbang is the fact that Indonesia is shifting its capital to East Kalimantan and Limbang town is situated close to the border with Kalimantan of Indonesia. That proximity creates another potential opportunity for Limbang.

It is now crucial for Limbang to develop a successful waterfront regeneration, as the town is already suffering the effects of urban decline and experiencing traffic congestion. The development of Limbang waterfront should be adequately planned so that it can become an example and model strategy for all the riverfront towns of Sarawak. The strategy should also include the socio-economic benefits resulting from the waterfront regeneration. The planning should

include urban design guidelines for pedestrian areas, public places and nearby streets as well as ensure that any new architecture reflects the local culture, tradition and the tropical climate of Borneo.

The new riverfront projects in nearby Bandar Seri Begawan including Jubilee Makota Park (the Brunei River Eco-Corridor) along with Sungai Brunei and Riverside 1 along Sungai Kedayan (Kedayan River) could partially serve as a benchmark example for the proposed riverfront in Bandar Limbang. Although Riverside 1 is an upmarket waterfront destination targeting a specific clientele and the Jubilee Makota Park is devoid of trees and shade structures, therefore, is only vibrant in the evening hours. However, both projects have generated pedestrian-friendly environments along the water. Figure 4 shows the two riverfront projects in Bandar Seri Begawan.





Figure 4: Riverside 1 (top) and Jubilee Makota Park (bottom) two new riverfront places in Bandar Seri Begawan.

The analysis of this study confirms that rivers are the valuable assets of Malaysia and serve an important role since early human settlement. Since the mid-19th century and mid-20th century urban economy grew steadily in Malaysian cities relying heavily on rivers for trade and transport. However, with the emergence of road transport, air freights and large ship containers, many rivers lost their dominant position as economic drivers. After many years of abundance, the state governments began to initiate policies and strategies aimed at regenerating decayed waterfronts by opening them to another economic sector which is tourism. The increasing number of tourists trigger retail and commercial businesses to open, which generates positive outcomes for the local economy.

For example, the Kuching waterfront and Malaka riverfront have been regenerated becoming one of the most popular tourist destinations in Malaysia. The transformation of the riverfront in Melaka and creating a 5km pedestrian walkway flanked by eating places and café has triggered the regeneration of the entire UNESCO listed old town. Any waterfront transformation must be conducted in parallel with strict environmental planning policies that protect and safeguard the riparian amenities. Limbang is a special place as its partial isolation in the last hundred years has created a unique and specific sense of place and identity. In order to retain the existing character, it is imperative to ensure that strict design guidelines, environmental planning policies and cultural traditions accompany any physical developments along the riverfront.

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