

An Evolution of Waterfront Development in Malaysia

By

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Abstract

Rivers have long been recognized as one of humanity's most important natural resources. They are one of the most important of all the natural resources necessary to ensure human health and civilization. A close association between cities and water is inherent over the history of civilization and in fact, many urban cities in Malaysia are located close to river areas. The last two decades have shown Malaysia has shifted development strategy from an agricultural base to industrialization, and manufacturing industries have now become the main component of the economy for the country. This transformation since the 18th century has clearly shown that rapid urbanization, industrial and intensive agricultural activities, as well as wide-spread land development, have contributed to extensive changing of river functions for the economy, national development and the environment. In particular, river roles have become less significant for human life and river functions limited to transportation purposes only. Viewed historically, waterfront development in Malaysia has undergone cycles of change over the decades and the latest in this pattern is to more public purposes, such as recreational and mixed used development. By using data from interviewing various groups of respondent, this paper aims to identify the transition in waterfront development in Malaysia from historic times to the modern era and is a significance background contribution to research that is currently on going.

Keywords: Waterfront development, Riverfront development, Urbanization

1.0 Introduction

A river means a copious stream of water flowing in a channel to the sea, a lake or another river (Hussein, 2006). According to Costanza (1999) almost 71 percent of the earth's surface was covered by water and rivers supply almost 99 percent of the living space on the planet (Lalli & Parsons, 1993) which determines a significant part of its climate and ecology (Costanza et al., 1997). The river has long been recognized as one of humanity's most important natural resources. Rivers make a huge contribution to human welfare and the United States report rivers generated about 21 trillion US dollar per year from their functions while appearing to be limitless sources of food, transportation, recreation and other functions (Costanza, 1999). In addition, Lalli and Parsons (1993) indicate more than 35 percent of the primary production of the earth is provided by rivers. As well as social importance for global transportation, as an element of cultures and traditional importance as a source for primary and secondary production, the biodiversity and contribution of the river to energy cycles is now beginning to be better appreciated (Costanza, 1999).

A close association between cities and water is inherent since the history of civilization whereby most cities are located on or near a water body of some type. For an example, in the history of human civilization Uruk, Eridu and Ur (to name a few) emerged as early settlements about 6000 years ago (400 SM) at Mesopotamia. Moreover, Babylon also developed and grew up along the Tigris and Euphrates River which was recognized as a very fertile valley (Maclonis & Parrillo, 1998).

In Malaysia, from earliest times, civilisations 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). As a consequence, some of the villages are named after the rivers that run through them, namely "Sungai Rengit, Sungai mati and Sungai Kapal in Johor.

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) (Sarawak Economic Development Corporation (SEDC), 1990). After being completed in year 2003, Kuching riverfront has become a benchmark for waterfront development projects in Malaysia. The next phase (which expands from the existing waterfront) will be continued in the year 2008 mainly focusing on river upgrading and beautification. Up to date, many waterfront developments has been developed in Malaysia, such as Malacca waterfront and Kuantan waterfront and more are forecasted to be continued for the future.

20 Waterfront and Waterfront Development

In general, waterfront is defined as the zone of interaction between urban development and the water. It is here that the needs of the water, the city, and its inhabitants come together. Breen & Rigby (1994, p. 10) sees waterfront as the water's edge in cities and towns of all sizes and the water body may be a river, lake, ocean, bay, creek, or canal. Zhang (2002) characterized waterfront as a place integrating land with water and having a natural attraction to people. In fact, the seashore and riverfront were the most attractive water features for human settlement.

In most countries, the land in front of water was developed earlier than the inland areas. Hussein (2006) define an urban riverfront as a dynamic area where cities engage their shorelines.

In common use, Dong (2004) refers to waterfront as a land fronting on to water. Even the word waterfront itself is clear; some researchers prefer to use several different words replacing the term waterfront with those such as city port, harbor front, riverside and river edge and riverfront (Hoyle, 2002; Hussein, 2006; Roy Mann, 1973; Watson, 1986).

An official definition by the US Federal Coastal Zone Management Act, Office of Ocean and Coastal Resources (OOCR) (1972) defines the term *urban waterfront or port* as, “any developed area that is densely populated and is being used for, or has been used for, urban residential, recreational, commercial, shipping, or industrial purposes”.

A more detailed definition by Guo (1998) as cited in Dong (2004, p. 7) described the waterfront as the interface point where land and water meet, between approximately 200 to 300 meters from the water line and 1 to 2 km to the land site and also takes in land within 20 minutes walking distance. Wu & Gao, 2002, as cited in Dong (2004, p. 7) added the waterfront area should have multiple features which incorporate each other and surrounded by structural and non structural objects to form a focal point.

The waterfront zone is a special area which holding special characteristics as discuss in Table 1 below;

Table1: Special characteristics of Waterfront area

Characteristics	Description
Dynamic area	Waterfront zone is a dynamic area with frequently changing biological, chemical and geological attributes.
Habitat	Waterfront zone include highly productive and biologically diverse ecosystems that offer crucial nursery habitats for many marine species.
Natural defense	Waterfront zone features such as mangrove forests serves a critical natural defense against natural hazards (flooding, erosion and storms).
Pollution moderator	Water ecosystems may act to reduce the impacts of pollution originating from land such as, wetlands absorbing excess nutrient sediments, human waste.

In the development area, Breen & Rigby (1996, 1994) considered waterfront development may not necessarily need to be directly fronting water but may only need to look attached to the water. They believe that commanding a view of water can be considered waterfront property. However, Goodwin (1999) argued that waterfront boundaries are difficult to determine because they are contained between relatively homogeneous land uses (such as housing, large-scale industrial plants or waterfront parks) and in some cases the boundaries may be indistinct, especially when industrial waterfronts have been abandoned with only a small part remaining, which might form the nucleus for revitalization planning efforts.

Dong (2004) agreed that waterfront developments have several expressive and varying interpretations due to characteristics of sites and cities. Ryckbost (2005) seen the waterfronts are any property that has a strong visual or physical connection to water and water itself have a variety perspective, whereby it can be lake, ocean, river or stream. As a conclusion, the best definition for waterfront development is development directly fronting on water for any purposes and the water components can include river delta, coastal plains, wetlands, beached and dunes, lagoon, and other water features not excluded watershed area. However, for the planning purposes, watershed is impractical goes under this definition because waterfront zone is a special area endowed with special characteristics. Clearly, the boundary of when the water and land are met is difficult to determined depending on jurisdictional limits and administrative by the country.

3.0 An evolution of waterfront development

Waterfront began as commerce centers, transportation hubs, manufacturing centers and commercial areas. Therefore, Waterfronts are seen as the focal point in many cities. But, due to various reasons including changing in transportation, containerization shipping and manufacturing this has lead to a significant decline in waterfronts.

The urban waterfront development is widely regarded as a frontier on contemporary urban development, attracting investment and publicity (Malone, 1996). Sydney, London, Amsterdam, Hong Kong, Tokyo, Toronto, Osaka, Kobe and Dublin are examples of cities developed through the waterfront development process. Therefore, understanding the historical milestone of waterfront development is important because these are the stimulates to modern development in the city (Wrenn, 1983). In the book *Urban Waterfront Development*, Wrenn (1983) divided the historical evolution of waterfront into four periods are as follows:-

(i) *Emergence of Waterfront Cities*

At this period, the early American settlement was closely tied to the water edge. Waters plays an important role for needs, trade activity and water transportation. Settlements were established after immigrants arrived and the colonial waterfronts were the doors to opportunity. A settlement's waterfront served to link the necessities of people with a familiar and predictable environment.

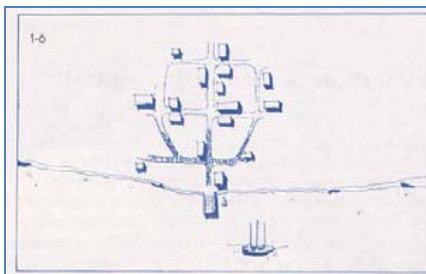


Figure 1: Typical Pattern of Port Development (Phase 1)

At that point in its development, the waterfront was nothing more than a few trails converging at a jetty. Rapid growth of waterfront community initiates a building development. However, the waterfront community still relies on waterway transportation due to limited transportation capability at that time.

(ii) *Growth of Waterfronts*

At these periods, waterfront settlement increased and became a city. The area turned into a busy area to cater for trading activity. Building and warehouse was developed along the waterfront and typically, rows of warehouses blocked the water's edge from the street. By spilling out into the water to expand docking and storage areas, the distance from the city's centre to its shoreline was significantly extended. To make it easy, alternative transportation methods were introduced other than waterways. However, waterfronts become more congested due to more space required to accommodate the need for the railroads. As a result, the central city was further detached from the shoreline. Since 1930s, elevated highways and interstate freeways have appeared near the shoreline. As a consequence, original offices and stores along the old shoreline were converted to warehouses and resulted in decreased number waterfront workers.

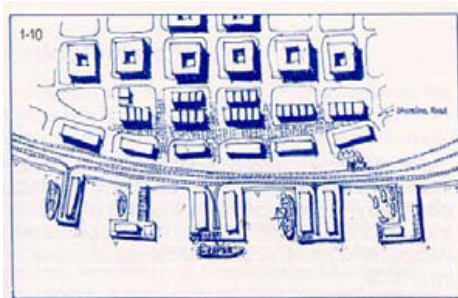


Figure 2: Typical Pattern of Port Development (Phase two)

In the meantime, the waterfront environment deteriorated due to the industrial pollution. The water became dirty and the waterfront began to lose its natural attraction to many urban residents.

(iii) *Deterioration of Waterfronts*

Technologies changed in containerization and shipping, improvements of transportation patterns (highways) and with new ports developed outside the city; the old ports lost the role as the transportation and industry centre. People preferred the highways to railroads because of their freedom of choice and more accessibility. As a result, the waterfront became even more deteriorated. Besides those factors, increase awareness among public to environmental issue and introduced air and water pollution controls to manufacturers also contributed to ports becoming obsolete and waterfront become neglected. The waterfront virtually becomes a dead, inaccessible and unsafe area, further separating the urban core from the water.

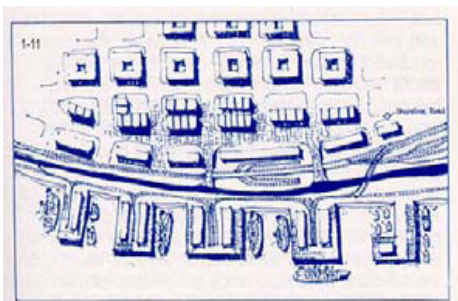


Figure 3: Typical Pattern of Port Development (Phase 3)

(iv) *Rediscovery of Waterfronts*

Over time waterfront became a dead due to the commercial failure of many ports, in the 1960s, governments wanted to recover the aesthetic scenery of the waterfront which had become polluted over the years. There

came a chance to reconnect waterfront to the downtown area for public use. Blends of recreational, residential and commercial uses were developed. As a consequence, much more land has been returned to public use. In the meanwhile new container ports were established outside the city where space was plentiful.

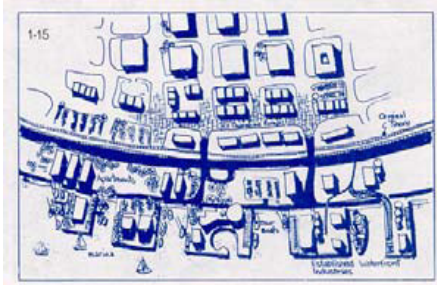


Figure 4: Typical Pattern of Port Development (Phase four)

It is apparent that each city has a different waterfront character, scale and pace, of course experienced variation in the typical waterfront evolution pattern. One fact is common though, urban waterfronts dramatically changed due to the influence of social and technology factors.

On the other hand, Mann (1973) indicates the historic milestone of urban riverfront development can be divided into six eras, are as follows;

(i) *First Riverfront Settlement (2000BC-100AD)*

The process started with the river as the main source of transportation for travelers and goods. The growth of society continued along the river edge but the riverfront at the time was not one of the perquisites for the city's birth. This phase of history shows the significance of initial association between rivers and people.

(ii) *Middle Ages (100AD – 1600AD)*

During the time, travelers sailed along the river started to settle down along the river edge. Colonizing along the riverbank may also have been for a safety factor because the rest of the zone was still filled with dense forest. The river provided water resource for daily uses and trading operations. Rivers became a primary criterion for city's development.

(iii) *Renaissance (1600AD – 1800AD)*

Through the time, the colony started to grow. Trees were cut down and land cleared for expansion. Business related to the river activity expanded and the river transformed into a focal point. When the city began to develop, the river became a necessity.

(iv) *Industrialization (1800AD – 1975)*

The small settlement developed to towns and buildings were erected along the river to cater trading activities. Structures, such as warehouses were built facing the river. Continuous development established in the perception of rivers as public open space corridors. The area was turning into a busy business district.

(v) *Decline of Riverfront (1975 – 1990)*

As time progressed, better means of transportation were introduced. Roadways and rail networks were built for a more practical mode of transportation. Better transportation has provided easier access resulting in the river's decline as a form of communication.

(vi) *Renewal of Riverfront (1990 – present day)*

The new buildings erection and communities started to approach the technology. New development was based on the accessibility factor. The city began to turn their backs from the river and the river in turn was beginning to be neglected. It was regarded as the back alley of the growing city. Earlier buildings and traditional settlements remain along the riverfront together with the polluted river. This is a starting point in the abandonment of riverfronts.

4.0 Research Methodology

For this study, 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.

Interviews were sufficiently answered in which the response rate of 100 percent was attained. Interviews were carried out with 25 different organizations and departments. Face to face in depth interview was mainly to gather a clear view about waterfront development history in Malaysia and selected area respectively. The objective from respondents' feedback was two-pronged. Firstly, we wanted to obtain the reaction of respondents on waterfront development in Malaysia, history, present and future implementation, regulation and obstacles during the practice. Secondly, we provide a platform for respondents to offer insight and alternative perspectives or views on how they visualize the future waterfront development in Malaysia in relation to regulation and practice.

Respondents were contacted in advance by telephone before the appointment letter was sent out by mail and electronically. For the most part, majority of officers refused to be interviewed with reasons were lack of time and resources. However, all of them agreed to cooperate after received an appointment letter.

The interview was conducted by using structured interview. The material was handed to the respondents by hand during the interview session. The respondent then verbally explained about the study in general before goes for following discussions. In this way, the interviewees were able to get quite a good picture of the study and interviewer is able to gain a specific and appropriate answer from the respondents. The response rate of this interview was 100 percent. The possibility of finding other ways of collecting data, for example via telephone interviews rather than face to face interview, should be considered.

The respondents views and perspectives were discussed in this paper is not intended to be exhaustive and representative of all stakeholders. Our intention is to present divergent viewpoints within the context and how responsible parties to frame our policies and strategies for this kind of development in this country.

5.0 Research finding and discussions

The interview was carried out between May and July 2009 among 25 respondents within selected area in Malaysia. Respondents interviewed to express the comprehensive issues related with this research topic. Figure 5 summary the respondent's profile participates in this research including organization, department and specialization.

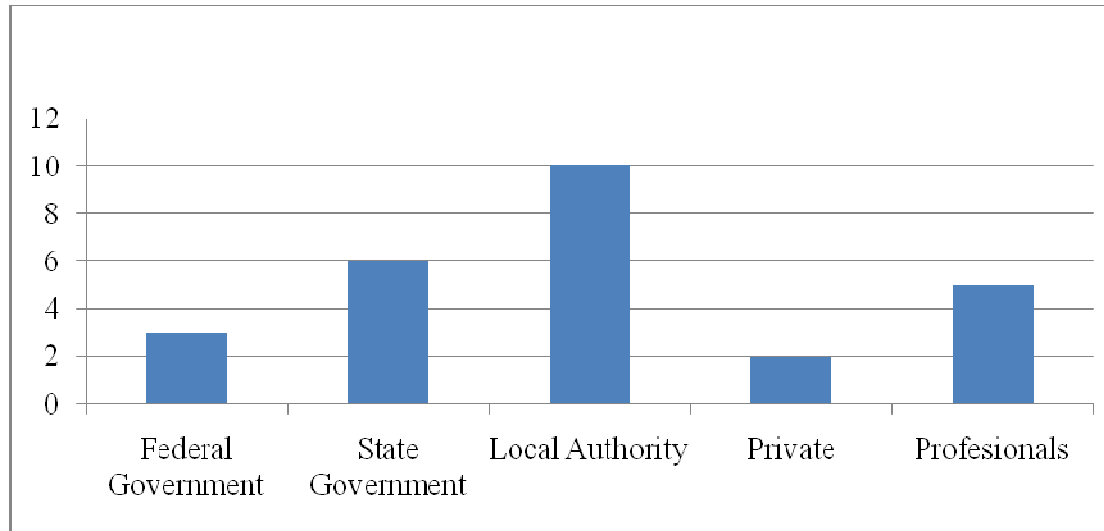


Figure 5 shows that majority of 25 respondents were from government organizations (92%). Only 8.0 percent comes from private sector. From this figure, it is clearly shown that waterfront development project in Malaysia is dominated by government. Other than that, respondents participated in this research 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.

5.1 River's Significance

Malaysia can be called as a water rich nation because of have number of rivers with great potential for wealthy recreation. Malaysia is bounded by the river flows from the northern to southern part of Malaysia, as well as Sabah and Sarawak. History shows many towns and cities in Malaysia were established nearby water areas including river and ex- mining area (such as Kuala Lumpur, Malacca and Perak).

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 2 has summarized the respondent's views on river's significant for human, environment and country in Malaysia.

Table 2: River's Significance for Malaysia

River's Function	
<ul style="list-style-type: none"> ● Transportation ● Trading ● Port activities ● Water ● Source of food ● Country's defend ● Habitat ● Valuable asset 	<ul style="list-style-type: none"> ● Ecology ● Human settlement ● Drainage and Discharge ● Agriculture ● Hydroelectric ● Recreational ● Tourism

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.

5.2 Waterfront as Human Settlement

Instead of busy as trading and maritime industry, waterfront area (refer to riverfront in Malaysia) also growth as human settlement area and has growing from time to time, and consequently riverfront area became a trading settlement. Settlements developed along the riverbanks and agriculture zones nearby. This is clearly shows that waterfront area (along the river area) was the prominent place for human society since an early civilization, not only in Malaysia but also other countries. However, the settlement area was provided without any facilities and improper planning. It is also influenced by no specific regulation which control land development and management during the time. Most respondents being interviewed agreed, early human settlements in Malaysia developed alongside river area (waterfront) and believe that people and river are significantly correlated to run their life such as communication, sources of life and agriculture. Landmarks left by them were an evident for the history. In fact, some settlements are remaining until present, such as Kampung Mortem in Malacca and Kampung Boyan Gersik in Sarawak was an example of settlement developed alongside of Malacca River and Sarawak River, in Malaysia. In addition, both Kampung are remaining well preserving its cultural colors amidst modernization (refer figure 6).



Figure 6: Human settlement alongside the Malacca River.

5.3 Transformation of waterfront development in Malaysia

Malaysia is gaining independent in year 1957 and it was the starting point of waterfront transformation in Malaysia. Focusing on infrastructure development indicated Malaysia struggled in achieving urbanization. Similar to many other countries, the increase of population size in urban areas is faster than in rural areas. The number of urban population growth in urban areas during third period (1970 to 2000) rose rapidly especially after restructuring boundaries of urban areas from 26.8 percent to 61.8 percent (Jaafar, 2004). Extended growth of urban areas is the signs of a healthy Malaysia's economy.

The increased population and urbanization triggers the local authorities to provide facilities such as public safety, health, administration, transportation and public utilities etc. These facilities should be prepared for adjustments in meeting the challenges related to growing urbanization.

Table 3 below shows the attributes for the transformation (revealed from the interview has been conducted) of waterfront development in Malaysia. Figure 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 (Rahman, 2001) and this is an evident of waterfront lost their goriest days and remaining history.

Table 3: Factors for declining waterfront's function in Malaysia

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

Presently, many dirty and stinking channels have been transformed into a waterway of lights and color 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.

5.4 Current practice of waterfront development in Malaysia

After experiencing rapid development and urbanization for many years, state government has started to extend abundant waterfront's area for future development. Sarawak state was a pioneer for this type of development and Kuching waterfront was established as a good practice of waterfront development in Malaysia and became a benchmarking for the whole Malaysia. This practice indicates a good starting point of how government maintaining and preserving our valuable natural resources for the country. The current patterns of waterfront development in Malaysia were focusing more on recreational or public use and some states begun with mixed use development. Even though most of the development projects were inspired by overseas (just name a few; Australia: Sydney Harbour, Europe: Saint Ontario), Malaysian culture is also remaining concerned. Table 4 shows a few examples of waterfront development projects that have been successful developed in Malaysia (Excluding coastal development zone).

Table 4: Waterfront development projects in Malaysia

Project's Name	Description of the project
Kuching Riverfront	<ul style="list-style-type: none"> • The development of the project was fully funded by the State Government. The master plan of the project implementation was prepared by SEDC and Land Corporation Development Authority (LCDA) and approved by state government. Construction began in 1991 and was completed in August 1993 and fully launched by the Chief Minister on Sept 1993. • Development area: approximately one mile along the south bank of the river, encompassing the river frontage to the historic business centre of the township. • Developer: Sarawak Economic Development Corporation (SEDC), Sarawak, Malaysia. • Contractors : PPES Bena Sdn Bhd + Uraco (M) Sdn Bhd • Consultants: ConyBeare Morrison & Partner (Australia) + United Consultants (Sarawak, Malaysia). • Project cost : 89.90 Million (Malaysian Ringgit) • Concept: an urban river park that blends the historical and cultural setting with the provision of facilities and activities for tourists and the community, particular families. Possible features to be considered as follows: Esplanade / pedestrian links, Malls Entertainment area. Family outing areas and children's playground. Tourist attraction areas and Possible centre for river cruise.
Malacca	<ul style="list-style-type: none"> • The development proposed by Chief Minister (State government) in year 2000 and river beautification project for Malacca River has been taking place since July 2002. • The projects were divided into four phases and were scheduled for

<p>Waterfront</p>	<p>completion by early 2010.</p> <ul style="list-style-type: none"> • Details description about the development are as follows: <ul style="list-style-type: none"> • Phase 1 - Started on 01 July 2002 – 31 August 2005 (31 months). The project cost about 91,200,000 (Malaysia Ringgit) and was funded by Ministry of Tourism, Malaysia. The project develops by Pembinaan Kaleigh Sdn Bhd and Pesona Metro Sdn Bhd. • Phase 2 – Started 01 November 2005 – 30 June 2007 (20 months). The project expands from first phase and was developed by similar contractor. The project cost about 49,950,000 (Malaysia Ringgit) and was funded by Ministry of Natural Resource and Environment, Malaysia. • Phase 3 – The next phase of developments completed within 23 months (01 August 2006 – 31 July 2008). It was funded by Ministry of Natural Resources and Environment, and costs about 93,000,000 (Malaysia Ringgit). Pembinaan Kaleigh Sdn Bhd and Pesona Metro Sdn Bhd remaining as a contractor for the development project. • Phase 4 – This phase started on 31 January 2008 and expected to be completed in 30 January 2010, within 24 months. The project using Ministry of Nataural Resources and Environment budget and has been outsourced to Kejuruteraan Asas Jaya Sdn Bhd as a contractor. Currently, the project completed about 41.0 percent.
<p>Glennmarie Cove</p>	<ul style="list-style-type: none"> • The development area approximately 246.13 acres is mainly proposed for mixed use development (Housing and Commercial). • Owner: DRB-HICOM (private) • Developer : Glennmarie Cove Development Sdn. Bhd (a member of DRB-HICOM) • Concept: offers a lifestyle with the vibrancy of a riverfront with the range of homes designed to complement the green surrounding and the shimmering waters. • Aim: to establish comprehensive and vibrant residential area with integrating commercial, open space and community facilities within residential area or called “self contained residential”. • Property details : <ul style="list-style-type: none"> • Bungalow lot (size is 600 sq. ft – 14500 sq. ft) – price starts from 73 (Malaysia Ringgit) per sq. ft. • Semi detached (size 40’ X 80’), built up area (2238 sq. ft), price: 666,800 – 885,800 (Malaysia Ringgit). • Semi detached (size 40’ X 80’), built up area (3110 sq. Ft), price: 914,800 – 1, 333,800 (Malaysia Ringgit). • Free hold sttus. • A gated and guarded riverfront enclave. • Low density development (comprising bungalow and semi-dees.

	<ul style="list-style-type: none"> • Land is scarce, especially riverfront developments.
J SHOP	<ul style="list-style-type: none"> • The development project proposed for five blocks of commercial building (Office building). • Concept: Offers exclusive and comprehensive working place with recreational facilities (project proposed in front of water retention pond). • Owner : Highlands & Lowlands Berhad • Developer: Sime Darby Property Bhd • Property details: <ul style="list-style-type: none"> • Block 1: 3-storey office building including parking lot, level three for centralize rubbish collector. • Block 2: 3-storey office building • Block 3: 2 storey office building • Block 4: 3-storey office building including parking lot, level three for centralize rubbish collector. • Block 5: 3-storey office building • The proposal has been approved by Shah Alam City Council and presently is under construction.

To date, waterfront development in Malaysia forecasted to expand in future. As a country wealth assets, government struggle to redevelop waterfront area and river upgrading. On the other hand, private developer also takes an opportunity to transform water into gold with initiated housing waterfront development projects. With incorporating various aspects, our mission is enhancing waterfront development and maintaining our natural resources.

5.5 An Evolution of waterfront development in Malaysia

Population growth, economic growth, urbanization and increased in technology have been transformed Malaysian economy from what was primarily an agricultural economy into industrial economy. It is also contributed by movement of shipping industries to new port facilities elsewhere on the island. This transformation symbolises the independent city state effort to remake itself for the 21st century. After experiencing urbanization and modernization, the current pattern of waterfront development in Malaysia has been change and focusing more on mixed use development and recreational with incorporating Malaysia cultural and historical value. So, it is interesting to understand urban waterfront for the past two centuries. The history milestone of waterfront development in Malaysia can be divided into three (4) periods which is in line during urbanization periods:-

(i) *First phase –During colonial rule (1887 – 1956)*

During period, the river was the most important means domestic and trade of transportation. Growth of society along the river edge initiated the emergence of port towns and several other urban forms. Business related to the river activity expanded and the river transformed into a focal point. Later in this period, shows the relocation of people, especially Chinese, into “new village” during the emergency period (1948 to 1960).

(ii) *Second phase –After independence & early urbanization (1957 – 1969)*

In this period, development continued along the river edge and the establishment of the perception of rivers as public open space corridors. However, the government started to separate Malaysians from different groups (Malays group in rural area, Chinese in urban area and Indian in estate area). Land settlement is one of the major approaches in agricultural and socioeconomic development (Manshard & Morgan, 1985). Another strategy to support rural sector transformation in Malaysia is “Agrarian reform” (Arshad & Shamsudin, 1997). The strategy of agrarian reform affects a wider range of inputs and institutions and aims at the transformation of rural life and activities in all their economic, social, cultural, institutional, environmental and human aspects (Food Agricultural Organization, 1978). The major agrarian reforms implemented in Malaysia were land development and settlement and in situ development. For an example, second Malaysia’s prime minister, late Tun Razak arise an idea of FELDA to reallocate rural communities. FELDA was formed on 1st July 1956 , after enforcement of Land Development Ordinance 1956 mainly to support poor and landless community especially Malays group (Federal Land Development Authority (FELDA), 2009). FELDA focus mainly on peninsular Malaysia. To date FELDA has developed approximately 317 new areas totally 853,313 ha which became plantation and settlement area and benefiting more than 530,000 settlers. After 50 years developed, FELDA scheme was the most successful scheme and becomes the world leader of oil palm industry and settler being a part of the middle income groups by year 2010. As a result, more river populations moved to urban areas under relocation scheme programs. During this time Malaysian population began to adapt urbanization and starting migrates to urban areas.

(iii) *Third phase – Urban explosion of industrialization period (1970-1997)*

Cities reshaping and rural reconstruction, urbanization and the upgrading of transportation system to cater trading and traveler resulted on declining of riverfronts. An introduction of New Economy Policy by government has encouraged the industrial production movement in Malaysia. Less reliability on river function for many reasons caused buildings and traditional settlements remain along the riverfront together with the polluted river.

(iv) *Forth phase – Technology, modernisation and vision 2020 (2000 – present)*

Starting from late 1990s, Malaysia begun to approach the technology and expansion of manufacturing and industry in urban area. Increasing job opportunity and facilities provided in urban area caused Increasing population in urban area up to 62 percent. Urban sprawl and city reshaping causing government initiate urban waterfront and urban riverfront development with two main reasons, redevelopment and revitalisation. After a few years, waterfront area became popular as recreational centre. However, congestion in urban

area causing an urban people starting moved to sub urban area (urban boundary) including river area for privacy. It is initiated a new pattern of waterfront development in Malaysia. To date, waterfront development becomes a new trend of development all over the country and popular amongst the developer with emphasis on housing and mix use development projects.

Waterfront development in Malaysia forecasted to expand in future. As a country wealth assets, government struggle to redevelop waterfront area while private developer taking an opportunity to transform water into gold with initiated housing waterfront development projects. With incorporating various aspects, our mission is to enhancing waterfront development and maintaining our natural resources.

5.6 Mission and vision of waterfront development in Malaysia

In Malaysia, waterfront development projects expected will be continuously successes by minimizing any failures. Some projects will be proceeding to a new stage, while some other project will be extended, and the rest are new projects. The conducted interview indicates that respondents from various departments (government, private and professional) agreed that waterfront development in Malaysia will be continuing success as similar as achieved by other developed countries. Although Malaysia still has some weaknesses in term of expertise, material and capital sources, but these are not obstacles to Malaysia reaping similar successful story as experienced by others. For the future expectation, Malaysia will be continuing practicing waterfront development for recreational, mix used development or any purposes with incorporating each other. Since waterfront development benefits economically, we aim to enhance waterfront development best practice in Malaysia. As an effort, government institution who have an authority on land development approval also agreed (based on interview) to support any proposal for waterfront development with could provide benefits for entire aspects (country, public and environment). On the other hand, as one of the trademark of the state, government will allocate some budget for the river beautification at every year. At this stage, state government only concentrate on upgrading riverbank area for recreational purpose. Maybe for next time, state government will look an opportunity on other uses.

6.0 Conclusion

Rivers are a country's valuable assets and serve as an important role for thousand of communities since early human history. In Malaysia, the history of waterfront development emerged in line with urbanization evolution. Urbanization and modernization have transformed Malaysia from significantly relying on rivers for commerce to a modern and fast developing country. After abundant for many years, state government began to re image waterfront area through river revitalization and beautification work. Instead of providing space for public uses, waterfront redevelopment also is an effort at how government maintains the country's valuable assets. On the other hand, waterfront redevelopment project has an ability to generate income to the country and state respectively through tourism industry. For an example, Malacca riverfront and Kuching waterfront have been the most attractive place for tourist while visiting both states. At the same time, increasing demand on waterfront property had encouraged property developer initiated development close to water area including river, lake, and water retention pond. Increasing population in urban areas due to job opportunities and other factors have caused people to start moved from high density populated areas to the outer limits of urban boundaries and

waterfront area became the best place. By surrounding with excellent environment, demand for waterfront property is expected to increase for the future even though offers with high price compared with similar properties type. So, both government and private parties are encouraged implementing this kind of development for any purpose as long as it could benefit for entire parties and without compromise on environmental protection.

7.0 References

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