

Assessing the Effect of Waterfront Development in Malaysia

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Abstract: A waterfront development is already a well-established phenomenon internationally. Waterfront redevelopment in Malaysia has taken place over the last twenty years. Many issues abounded when a city decided to transform its vacant or underused waterfront areas. Some waterfront development projects have successfully included waterfront attraction projects, but many others have not succeeded. Therefore, this study aims to examine the effect of waterfront development in Malaysia. The findings of this study were based on interviews conducted within three case study areas: Kuching's Riverfront, Malacca's Waterfront, and Glenmarie Cove Riverfront. The results showed that the development of waterfront development have several effects, both positive and negative sides. Improving riverbank beautification and landscape and increasing environmental problem such as water pollution and flooding were identified as a main effects derived from waterfront development in the particular case study areas. Therefore, maximizing waterfront benefits is important for maintaining the economic value of waterfront areas.

Key words: Development, waterfront development, waterfront development, effects, problem

INTRODUCTION

Urban waterfront development is already a well-established phenomenon internationally. Due to the decline of harbour sites and waterfront industrial areas in the second half of the 20th century, urban waterfront redevelopment started in North America, most notably with Baltimore's Inner Harbour in the 1970s and has gradually spread to Europe and elsewhere since, the 1980s (Gospodini, 2001). Many water fronts have been transformed from working industrial ports into commercial, recreational and tourist areas. In addition, private developers began making profits by exploiting the waterfront's ambience in the marketing of their projects. As a result of both private initiative and public involvement, cities have gained valuable benefits from the redevelopment projects such as new parks, walkways and other recreational facilities (Smith, 1995). They provide a unique opportunity to reconnect what is special and remarkable about the river and to achieve a more sustainable and enjoyable quality of life.

The rapid development and urbanisation over decades caused the Malaysian government to start including many waterfront areas in future development with the focus on more recreational use while private property developers concentrated more on mixed-use

development. The Kuching Riverfront, the Malacca Waterfront, the Glenmarie Cove Riverfront and the Kingfisher Cove Riverfront (to name a few) are examples of development projects that apply waterfront redevelopment phenomena in Malaysia. To date, interest in waterfront property is booming even when offered at high prices, as people want to live close to the water for recreation and aesthetic reasons.

However, in some cases, the implementation of these waterfront projects is driven more by investment needs rather than by community and environmental needs, with developers neither taking part in nor contributing to the government goals of sustainable water use. In addition, inadequate regulations and guidelines relating to waterfront development at every level of government, is having a negative impact environmentally and socially such as water pollution and crime. Therefore, this study aims to examine the current practice of waterfront development as well as the effect derived from waterfront development project.

Literature review

Waterfront and waterfront development: In general, the waterfront refers to land fronting on to water (Dong, 2004) and the water itself being any type of water body such as a lake, the ocean, a river or a stream of all sizes. Moreover,

the waterfront is a zone of interaction between urban development and the water and a waterfront area is considered to be a unique and irreplaceable resource where it interfaces between land, water, air, sun and productive plants (Wrenn, 1983). A more detailed definition by Dong (2004) describes a waterfront as the point of interface where land and water meet, within 200-300 m from the water line and 1-2 km of the land site and within 20 min walking distance.

In the development context, waterfront developments have various interpretations depending on the characteristics of the sites and the cities (Dong, 2004). And, Butuner sees waterfronts as land to be reclaimed from water in order to create an extension of existing city centres.

Breen and Rigby (1994, 1996) considered that waterfront development may not necessarily need to directly front water but may need only to look as if it is attached to the water. They believed that a property with a commanding view of water can be considered as a waterfront property.

Characteristics of waterfront zone: The waterfront zone is an area endowed with special characteristics. Table 1 below described the special features and functions of waterfront areas.

Elements for successful waterfront development: Apparently, the harmonies of waterfront development could be achieved through combinations of people, nature and technology (Mann, 1973). In addition, Bertsch (2008) determined that for any use of a waterfront area, a water plan should be developed before the land plan, to maintain an economically viable waterfront. Therefore, he recommended several principles that must be included while developing plans for waterfront areas, as follows:

- Accessibility: the waterfront should not be isolated or separated from the development, so that the public can access the waterfront easily (convenient means for visitors to access the waterfront area)

Table 1: Special characteristics of a waterfront zone

Characteristic	Description
Ecological	The waterfront zone is a dynamic area with frequently changing biological, chemical and geological attributes. The waterfront zone includes highly productive and biologically diverse ecosystems that offer crucial nursery habitats for many marine species.
Economic	The waterfront contributes significantly to human welfare, both directly and indirectly and, therefore represents a significant portion of the total economic value of the planet
Social	The waterfront zone is socially important for global transportation, open access and common property and is a unifying element in the cultures of each country

- Integrated integration of the history, culture and existing architecture are recommended for new waterfront development
- Sharing benefits a balance between public benefit and developer profitability must be found. A public-private partnership is essential for realising the inspiration of the design
- Stakeholder participation the involvement of multitudes of interested parties is compulsory: government agencies, developers, community organisations, environmental groups and the public all have a stake in the developments of a waterfront property and all must be involved in the process
- Construction phase, breaking down a huge project into several phases and allowing all stakeholders and the general public to see this provides a vision for the future

MATERIALS AND METHODS

This study, employs qualitative methodology for the data collection. The one-to-one in depth interviews were carried out within selected three case study areas namely Kuching's Riverfront, Malacca's Waterfront and Glenmarie Cove Riverfront and finally 25 respondents which were involved directly and indirectly in the waterfront development projects were interviewed. In addition, several related documents have been also reviewed particularly to support interviews' output. Using a multiple-case study as it is considered more compelling and regarded as being more robust (Yin, 1993, 1994, 2003). And application of multiple sources of evidence as compared limited to one specific data source by other strategy (May, 2001; Yin, 1984) is particularly useful to generate of rich information of complex issues. Table 2 summarises of case study areas selected in this study.

Table 2: Characteristics of case studies areas

Case study area feature	Kuching riverfront	Malacca waterfront	Glenmarie riverfront cove
Name of water body	Sarawak River	Malacca River	Langat River
Type of project	Recreational	Recreational	Residential
Project's owner	State of Sarawak	State of Malacca	DRB-HICOM
Amenities	Restaurants, river access, Shops, waterfront settlement	River access, shops, waterfront settlement	Restaurants housing, river access
Views	River views and city	River views and city	Limited river views
Proximity to river	50 m	50 m	100 m
Proximity to CBD	1 km	1 km	35 km

RESULTS AND DISCUSSION

Response rate: Interviews were sufficiently well answered to allow a response rate of 100% to be obtained. Respondents in this study were people from government sector which including federal, state and local government. The one-to-one in-depth interviews were mainly to gather a clear view about waterfront development history in Malaysia and about the selected areas.

Waterfront development practice in malaysia: From the results, majority of the respondents agreed that waterfront development in Malaysia was established a long time ago, but wasn't commercialized until 1990. Over the last 10 years, Malaysia has begun waterfront redevelopment projects and has focused on recreational, residential and mixed-use development rather than regenerating waterfront businesses (shipping and transportation). This finding was supported by the literature that indicated that in the past, many waterfront re development areas under went a transition from abandoned spaces to commercial, residential and recreational areas (Sairinen and Kumpulainen, 2006).

Moreover, interview responses indicated that waterfront developments in Malaysia require a similar process as other types of developments. State government has full responsibility for water front development projects starting from planning permission approval up to project completion. Nevertheless, the land development process is slightly different for Sarawak and Sabah and OSC is not yet applied in the states. For the state of Sarawak, land development is controlled by the State Planning Authority (SPA) and Local Authority does not get involved directly with the development process unless the development is proposed by them and uses their own budget. The SPA chaired by the Chief Minister has the authority to give an approval to the proposed development with recommendation by the committee. However, due to constraints on resources (skills and expertise), the government has outsourced some of the work through open tender and will be selected by the Chief Minister.

In term of parties involvement in waterfront development in Malaysia, it is clearly shows that waterfront development in Malaysia do not have any involvement from community and Non Governmental Organisation (NGOs) along the process, unless if the development involves public land acquisition. In practical, public participation over land development is directly under the land acquisition and specifically related to compensation matter (Schedule 2 of Land Acquisition Act

Table 3: Waterfront development positive and negative effects

Variables	Respondent		
	G1 n=25 (%)	G2 n= 18 (%)	G3 n=7(%)
Positive effects			
Improving riverbank beautification and landscape	11 (44)	10 (55.5)	1 (14.3)
Generated income for the state and country	9 (36)	8 (44.4)	1 (14.3)
Increased property markets.	7 (28)	5 (27.8)	2 (28.6)
Increased property prices.	6 (24)	3 (16.7)	3 (42.8)
Business activity	5 (20)	3 (16.7)	2 (28.6)
Job availability for residents	4 (16)	3 (16.7)	1 (14.3)
Upgrading waterfront settlement	4 (16)	4 (22.2)	0 (0)
Accessibility	3 (12)	2 (11.1)	1 (14.3)
Negative effects			
Environmental problem water pollution and flooding	15 (60)	13 (72.2)	2 (28.6)
Social impact vandalism	8 (32)	7 (38.9)	1 (14.3)
Increased cost for maintenance and river cleaning	7 (28)	6 (33.3)	1 (14.3)
Lost cultural values	5 (20)	5 (27.8)	0 (0)
Property market speculation	2 (8)	1 (5.5)	1 (14.3)

G1 = All interviewees; G2 = Government officers; G3 = Non-government officers

1960 determines, “government can acquire land for public purposes with adequate compensation”.

Waterfront development effects in malaysia: From the interviews, all 25 respondents thought that waterfront development in Malaysia have produced an effect socially, economically and environmentally. Table 3 below summarises interviewees' responses on the effects of waterfront development in Malaysia from both the positive and negative sides.

According to Table 3, on the positive side, it appears that nearly half of the respondents (44%) agreed that waterfront development could improve riverbank beautification and the landscape. Moreover, an overall 36% of respondents thought that waterfront development has the potential to generate income for the state and for Malaysia through the tourism industry. For example, a waterfront development especially for recreational purposes is identified as attractions for tourists and/or visitors. Previous research focusing on the social impact of waterfront development indicated that successful waterfront development was significant in increasing household income, job opportunities, regional business sales and tourism (Krausse, 1995). In addition, waterfront

redevelopment provided better safety and access to downtown areas and also created new economic activities (Arnott and Small, 1994). The interviews also identified that waterfront development have good effects on waterfront property in terms of demand and property prices as well as property at surrounding waterfront areas, and these two accounted for 28% and 24% respectively. In similar, research conducted by Oliva showed that waterfront development has a positive impact on housing prices (1996-2003) and established a positive relationship between waterfront development and house prices although the impact varied with distance from the water body. Only a few (12%) respondents thought that waterfront development could improve accessibility between water areas and the city.

Waterfront development also has negative effects. From the interviews, 44% of the interviewees thought that waterfront development have major negative effects on the environment such as flooding and water pollution. Previous research conducted indicates that the growth of waterfront development has also caused the environmental impact to worsen, especially in regard to flooding and pollution (Bialaszewski and Newsome, 1990; Eves, 1999, 2002, 2004; Fibbens, 1992). Subsequently, extreme negative effects from flooding and drought can alter property values (Kauko *et al.*, 2002; Mooney and Eisgruber, 2001). Furthermore, from the interviews, 32% thought that the social effects for example vandalism, have contributed to the negative effects derived from waterfront development in Malaysia for the case study areas. For example, interviewees' stated that facilities provided for public use within the waterfront boundary were damaged due to vandalism. More than that, in some cases, the facilities provided were stolen. A few interviewees (8%) thought that waterfront developments could cause market speculation.

CONCLUSION

This study concludes that waterfront development in particular case study areas (Kuching Riverfront, Malacca Waterfront, Glenmarie Cove Riverfront) have both positive and negative effect on environment, economic and social. Therefore, in order to maximise the benefits provided by the waterfront and to minimise the conflict and negative effects of waterfront activities, an integrated waterfront management system that consists of legal and institutional frameworks are necessary (Post and Lundin, 1996). In addition, good collaboration and coordination between different government authorities and external stakeholders is highly required and the implementation of and the aims of the interventions should not be contradictory.

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