
**SUSTAINABLE URBAN WATERFRONT REDEVELOPMENT :
CHALLENGE AND KEY ISSUES**

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Abstract

Urban waterfronts as complex bioregions by nature and also socio-economical hubs by their history provide a real challenge for planning institutions in capturing and responding to the trends and dynamic of the development. In the perspective of being competitive, cities are exercising urban practises to attract investment and resources by rediscovering urban tradition and culture fundamental to build attractive urban identity. Tertiary industry including urban tourism is being developed in attractive and strategic places by revitalizing the city centre and the waterfronts.

Understanding the challenge and key issues of urban waterfront redevelopment is crucial in the planning for sustainable future for the waterfront. This article describes the challenge and issues found in the urban waterfront redevelopment; the problems that are integrally linked with the history of planning of the surrounding urban region, and the opportunity abound to be addressed as integral character of the city's future growth. The approach to sustainable urban waterfront redevelopment differs from locale to locale, but the study cases show some challenge and key issues in the urban waterfront redevelopment are quite similar.

Four cases of urban waterfront redevelopment plan located in Toronto Central Waterfront, Dalian Waterfront, Zanzibar's Stone Town and Jakarta's Waterfront are compared to understand the scope of the planning sector, the challenge characteristic to urban waterfront redevelopment, and the approach used in planning toward sustainable waterfront design. The objective of the case review is to find good examples of the theory implementation : what are the destination of the future waterfronts, the planning approach and institutional and sectoral cooperations. The reason for choosing the cases is based on the difference of geographical location and culture, the difference approach and the possible difference of waterfront characteristic. Zanzibar and Jakarta are located in developing countries and the two cases present a characteristic challenge; tackling urban problems including urban poverty as one of the main goals. Toronto and Dalian's location in more developed world (Canada and China), provided some insight of difference and similarities with those in developing countries.

The result shows that urban waterfront is indeed challenging environment where urban planning is constantly challenged by three pillar sectors; the economy, social and ecology. The evidence from case studies shows that major challenge found in the urban waterfront redevelopment should be addressed sustainably, requiring multi-sectoral and multi-scale institutional approach. Key issues and challenge in addressing urban waterfronts redevelopment include economic diversity, social identity, shifting land use made possible by urban policy, reconciling conflict of interests, local institutional capacity and the planning system and delivery mechanism implemented.

Keywords : urban waterfront, sustainability, urban redevelopment, sustainable spatial planning

**Introduction : The Need To Address The
Urban Waterfronts**

As an integral part tied historically to the city as one urban region, urban waterfront has been consequently contributing to and sharing urban issues with the respective region's growth and development. The development history worldwide has shown the waterfront utilization evolving in spatial evolution, importance, and functions. Urban waterfront redevelopment has been the realm

where planners are challenge with issues of urban sustainability like no other urban region. Some literature providing us with the sustainable redevelopment issues include waterfront redevelopment (Wren 1983), examples of different development themes (Breen and Rigby 1994 and 1996), heritage and cultural preservation (Hoyle 2001 and 2002), exploration of urban identity (Iwata and del Rio 2004), and realm of political changes in planning practice (see for example

Basset et al 2002, Sanderdock and Dovey 2002, Oakley 2005b, Laidley 2006, Bunce and Desfor 2007).

Understanding the challenge and key issues of urban waterfront redevelopment is crucial in the planning for sustainable future for the waterfront. The concept of sustainable urban waterfront is integrally linked to the development of the surrounding region; the waterfronts and the city are solving the urban problems in unity. The challenge and key issues in the planning of sustainable waterfront are manifested in the problems and unique settings of each case, as well as in the unique approach of each planning. This research looked at the different settings of each case and each approach of redevelopment which was undoubtedly unique for each case. The different setting of developed and undeveloped countries provided a determine factor which and how actors (or stakeholders) are involved and what kind process planning were adopted. Yet there are also similarities, brought about by globalization and local pressure, for the cities to achieve growth, by utilizing their waterfronts.

Spatial and Functional Relationship Between Cities and Their Urban Waterfronts

The decline of maritime industry and the changes in maritime technology in the post war cities especially in North America and Europe in 1950 and 1960 had left the waterfront as a vacuum area which in its deteriorated state still offered ample development opportunities due to “its

geographical advantages” (Hoyle, 2001). Along with the first movement of environmentalism, the first waterfront redevelopment trends rose in 1970es, transforming the many previously abandoned waterfronts into modern lifestyle functions of residential, commercial and recreational centre.

Two decades later in the twentieth century, developing countries started to utilize their urban waterfronts, recognizing their potentials to answer the global challenge as well as the local pressure (Hoyle, 2001). The history of most developing countries, especially in Asia, Africa, America and Oceania as former colonies of European countries offered different history in spatial evolution which in turn gave characteristic and challenge to urban policy related to the urban waterfront development as observed by Lee et al (2008).

The need to improve environmental quality, the availability of abandoned waterfront sites, the pressure upon urban space and infrastructure brought about by urbanization have led the waterfront redevelopment as a fitting solution (Breen et al, 1994). The waterfront redevelopment has since then been utilized as part of sustainable urban practices to deal with urban development, thus remain a “hotspot” of urban planning where conflicting interests meet intensely. Urban waterfronts today hold strategic key in the development as prime locations for regional restructuring (see for example Laidley 2006, Iwata 2005).

**Sustainable Approach to Waterfront
Redevelopment**

Both in the developed and the developing worlds, urban waterfronts share the same nature of being a distinct area where land meets the water with “particular ecologies, economic system and identities” (Bunce and Desfor, 2007). Social, economic and environmental functions present in the waterfront are often in competition. The need to improve the environment condition or preserve the natural quality does not always go hand in hand with the need to explore waterfront qualities for social and economical gain.

Waterfront as a complex eco region by nature and also a socio-economical hub by its history provide a real challenge for planning institutions in capturing and responding to trends and dynamic of the development, as Hoyle (2001) stated *“Such waterfront schemes should not be developed in isolation, but perceived and planned in the context of wider urban fabric port-cities.....as element within wider environment within which they are situated and the national and international urban networks to which they belong to”*. The statement implies the importance of connectivity issue, where spatially confined authorities which are not necessarily aligned with natural geographical boundaries need to address the waterfront redevelopment beyond political boundary and the importance to address it through sustainable development.

In this sense, spatial planning in waterfront realm should not be isolated, rather it has to cater to the interconnectedness

between functions and the larger network it belongs (Hoyle, 2001).

The utilization of waterfront development is of political interest, more often than not much bigger than its political boundary (Bunce and Desfor, 2007). The manifestation of this interest can be seen in hierarchical institutional term where different levels of government are joining forces to define the waterfront’s importance in different levels. International cooperation in the schemes also shows that urban waterfronts can hold international interests such as preservation of precious heritage environment (see Hoyle 2001, 2002). In vertical relation, the cooperation between regions sharing the same bioregion of the water body allows the perspective to perceive the waterfront as a more complex (and wider) ecology. Addressing waterfronts in a more holistic way is essential to have the policy and plans more accurately directed.

The need for cross-sector planning in waterfront redevelopment schemes can be recognized in many literatures. The complex nature of the waterfronts calls for strategic and sensitive approach; in which many writers propose the scheme of governance and partnership (Basset et al 2002). The waterfronts are proven to be difficult test for sustainable cooperation between different sectors of public, private and government which represent different objectives in economic, social and environmental development (Basset et al 2002).

The Case Study Method : What To Learn From Toronto, Dalian, Zanzibar and Jakarta Waterfronts

Since early 1960 and 1970, North America and Western Europe have been leading in the urban practices of exercising waterfront revitalization in the scheme of urban renewal by rediscovering what the urban culture shaped by the historical interaction with its waterfronts has to offer to make the city more livable. Many port cities offer the characteristic in spatial, socio-cultural and socio-economical values which in many revitalization projects are playing determinant factors in the development scheme. The 20th century has seen growing practice of waterfront revitalization in developing countries (IOC 1999, Hoyle 2001) where many waterfronts are being transformed and utilized as catalyst for development.

The case study in this chapter covers four waterfront redevelopment schemes located in the port cities of Zanzibar, Toronto, Dalian and Jakarta. The objective of the case review is to find good examples of theory implementation : what are the destination of the future waterfronts, the planning approach and institutional and sectoral cooperations. The reason for choosing the cases is based on the difference of geographical location and culture, the difference approach and the possible difference of waterfront characteristic. Zanzibar Tanzania is famous for heritage tourism and Dalian China which is a rapidly growing port city which was voted as one of the most livable cities in China 2006 is located in a newly industrialized country. The Toronto Central Waterfront has quite

undergone much transformation and changing plans since early 1980ies, is a superb example of a waterfront redevelopment situated in developed country. Last but not least, Jakarta, a mega city in developing country of Indonesia, aimed to utilize its waterfront to address many of Jakarta's socio-economic and environmental urban problems. These cases provide localized implementation and approach which may vary or offer similarity with one another.

From literature and also field study, this research aims to descript the planning process, the approach used for redevelop (and revitalize) the area which has been neglected, abandoned or facing many urban issues and simply unattractive for investment in each study case. It is also important to note the actors involved, the "agent of change" if there is any, the kind of cooperation emerged between different sectors and institutions, and what kind of resolution emerged from competing interests.

Dalian Waterfront : From Post-War to World City

Toronto Central Waterfront and Dalian Waterfront share some similarities in the history of development. Dalian shares similar geographical importance, a strategic hub from Pacific region into inland China, making Dalian port activities an important aspect in its economic development (Dong, 2004).

Both waterfronts were initially utilized mainly for industrial activities, closed from public access. Both waterfronts were then available for more public development in the Post-War era, mainly due to major shift in the

political environment. As common to the post-war waterfront cities, the previously occupied and closed Toronto Central Waterfront and Dalian Waterfronts were being available for new uses due to the relocation of maritime-based activities, the decline of industrial activity and the environment movement. The driving forces for the revitalization can also be recognized as the result of urban land commercialization and the ambition to achieve “international” status.

Chinese economic reform established by Deng Xiaoping in early 1980 brought about the urban land commercialization strategy which rendered Dalian city centre area less economically viable for heavy industrial activities resulting in land use changing into high profit rate occupancy such as commercial, office and recreational area. After it was given the privilege of “open city” by Chinese government in 1984, foreign investment has been growing business beyond port and shipping activities, shaping a different development path compared to other manufacture-based Chinese cities.

The changing in the political setting was an opportunity to explore Dalian unique urban environment¹. Tertiary industry is being encouraged; commercial and shopping centre as well as tourism and leisure industry are the main land use in the attempt of transforming the urban area into exciting environment for inhabitants and tourists (Dong, 2007), while

industrial parks are growing toward suburb inland region. The waterfront revitalization project includes the creation of public places, access and infrastructure to connect with the commercial lines in the city centre². Dalian today is also best known for the IT based business (International Herald Tribune, 2007), and in addition, tourism and foreign companies quarters are growing. It has been consecutively chosen as the most livable city in China.

The significant actors in the redevelopment schemes are the municipal and central government, government agencies and private sectors. The municipal government has been the initiator of local redevelopment projects, following the decision of central government in granting Dalian with the “open city” status allowing more freedom for private and foreign investments. The creation of authority agencies, such as Dalian City Construction and Management Bureau and Xinghai Bay Development and Construction Administration Centre further developed the localized implementation. Information on public involvement is not available and is barely mentioned, creating the assumption that the main actors are the government authorities and the private investors.

¹ Dalian has a unique history consisting of series of political tumults; British empire attempt to colonize the land in 19th century, the 40 years Japanese colonization until 1945, followed by Russian invasion until 1950 after which Dalian was liberated unconditionally and handed over to the Chinese government (Dong, 2004). The result was a mix culture and more open attitude toward foreign influence.

² Xinghai Bay has been developed into a commerce area and a cultural centre where events and festivals are held including modern leisure centre such as Sun Asia Ocean World, Tourist Harbour and Xinghai Park (Dong, 2007), while Binhai Road area are lined with hotels and also commercial centers taking advantage of the scenic Dalian hills.

Toronto Central Waterfront : Shifting Paradigms In Waterfront Redevelopment

Toronto Central Waterfront is located at the north bank of great Ontario Lake, south eastern Canada, under the authority of City of Toronto and part of Metropolitan Toronto Region. The Central Waterfront has been a gateway to the province, a symbolic nodal point due to its geographical location in the trans-boundary water. Toronto Central Waterfront has undergone a transformation similar to Dalian Waterfront development, albeit different story line. Laidley (2007) observed two chronological paradigms in the development politics; the ecosystem approach introduced in 1992 by Royal Commission on The Future of Toronto's Waterfront and the global imperative approach currently undertaken by Waterfront Toronto (previously Toronto Waterfront Revitalization Corporation) since 1999.

Despite the availability of redeveloping the Central Waterfront, there was constant delay in the planning and development due to three problems: jurisdiction gridlock, industrial zoning and the competing interests between public and private use (Laidley, 2007). The forming of Royal Commission to address the delay³ had succeeded in overcoming the problems. This success was embodied in the spatial plan "The Waterfront Trail", a green infrastructure which connected and opened up the waterfront line for public

³ Canadian federal government reacted to this problem by creating a Royal Commission, the highest federal level of government inquiry, to attend to this delayed development. The Royal Commission, with former Toronto mayor as sole Commissioner, was given the mandate to "inquire into and give recommendation about the future destination of the waterfront". Experts from different fields were brought in to be commission advisors.

access spatially and functionally. The trail conveyed access, recreational places and green structures which enabled the waterfront to meet the recreational demand with private sector involvement while at the same time improving the environmental condition. The spatial restructuring plan included change of land use which relocated the existing industry in the east waterfront and opened up opportunity for tertiary industry to sustain the economic growth. A prominent feature in the ecosystem approach is the reconciliation of ecological concern, social demand and economic development under the notion that in the term "ecosystem" everything is connected thus it is impossible to sustain social and economical value in deteriorating environment (Laidley 2007, Crombie 1992). This trail also added the "interconnectedness" between waterfront communities, in the sense that the trans-regional trail would need cooperation between involved institutions to avoid isolated result, vertically and also horizontally between structural hierarchies (Crombie 1992, Laidley 2007).

The second shift in the politic of waterfront development was started in 1999, when three levels of the government together created the Toronto Waterfront Revitalization Corporation, which in 2007 was changed into Waterfront Toronto. This board's proposal⁴ can be seen as continuing approach of the ecosystem model but with the predominant focus toward economic prospect of waterfront

⁴ Under the theme Making Waves the core principles of this new development paradigm are "removing barriers/making connection, building a network of spectacular waterfront park and public places, promoting green and clean environment, and creating a new dynamic and diverse community" (Waterfront Toronto, 2007).

development (Laidley, 2007). It is quite apparent that the waterfront is the strategic site key to develop Toronto as capital accumulation (Laidley 2007). A series of development followed the momentum of this new perspective; the release of Master Plan containing land use, infrastructure and environmental remediation in 2000, the release of Waterfront Culture and Heritage Infrastructure Plan in 2001, new waterfront government model in 2004 and a series of site development and urban design planning open to public.

A public-private partnership was also developed to finance the green infrastructure plan, and the public was appeased with the consequent prospect of economic development. Laidley noted that the biggest success of the Royal Commission was the establishment of a roundtable meeting where communication between levels of government, agencies, organizations and individuals was made possible. This "stakeholder roundtable" model was employed in the commission's work groups, committees and public consultations (Laidley, 2007). Further Laidley points out that it is important to situate this approach in the era of second environmental movement, where public pressure toward this issue is vital; soil and water pollution were of primary concerns and there was high social demand for recreational public space. It is crucial to reconcile interests from involved sectors: government, private sectors, the community, NGOs, knowledge institutions and all actors who have interests in the value of the waterfront. While the exploration of private

role in urban practice has been a strong trend and it will speed the process of waterfront redevelopment, a balance between private and public interests has also been an issue in the waterfronts.

Zanzibar's Stone Town Waterfront : Heritage as Identity and (New) Industry

Zanzibar and Jakarta shared similar history as post colonial cities, situated in developing countries. Both waterfronts also faced similar urban problems; declining of urban fabrics in the waterfront, the emerging of slum area and environmental problems. While Zanzibar's Stone Town Waterfront decline was because of the collapse of the spice market⁵ which was once its life generator, Jakarta had faced the altogether different challenge of unsupported rapid urbanization.

The Stone Town Waterfront was developed during the British administration with the objective to create luxurious facilities, but never fully realized due to the country's independence. The architectural character is a mixture of Indian Arab, African and European features and influenced by British town planning. By the time Zanzibar gained independence in 1963, followed by revolution in 1964, the clove market had collapsed and the urban environment was steadily declining. The declining era resulted in the declined of urban fabric and also environment. The local perspective towards old heritage structures, the lack of interests

⁵ Zanzibar flourished in the 19th century under the Oman leader, Seyyid Said, with the trading of spice and slaves.

and means of improvement were considered to be main factors.

Zanzibar started to gain international attention in 1980es and a series of survey and planning from international heritage organizations followed, resulting in the plan for future destination as historic waterfront. The prominent actors in the developing schemes are the Zanzibar government, Aga Khan Trust for Culture, UNESCO and the EU. The Trust worked together with the Zanzibar government in one of heritage structures, a cable and wireless station which was transformed into an upmarket hotel through a careful renovation. An important note are the partnership with the Cable and Wireless Company in the development process and the additional function of this project in providing employment, training and a set of standard for other heritage projects in the area. Further, funded by the EU, the waterfront space was given spatial restructuring which included the relocation of port industry, preservation of ferry and passenger facilities, opening public spaces and retail facilities, reintegration and restoration of the Culture Centre's waterfront with the urban fabric by removing warehouses and buildings. The inscription of Zanzibar in the World Heritage Site further shaped the course of Stone Town waterfront into urban tourism economy. The listing had provided global advertisement for cultural tourism and opened links for the Zanzibar government to more international funding.

Jakarta Waterfront : The Challenge of Mega City's Waterfront In Developing Countries

Jakarta originated from the settlement around the harbor called Sunda Kelapa and it grew with shipping and spice trading activities. In the 16th century it was named Jayakarta meaning "victorious" after the victory of Fatahillah against Portuguese army. In 1617 Jayakarta fell into Dutch power and was renamed Batavia. The strategic location of Batavia which was not unlike Singapore had made it a melting pot of cultures and communities since early times. The flourishing coffee and tea plantation especially in the inland region had made Batavia and its harbor an important transportation and trading hub. Batavia's population was growing in 17th and 18th century; by the middle of 18th century Batavia had already had its environmental problems⁶. In the end of 19th century, Batavia urban pattern was made of sub centres along the main infrastructures with kampongs or villages growing in between (Steinberg 2008).

After the independence, the first attempt of urban planning by the Republic of Indonesia was embodied in the Outline Plan in 1957 to develop Jakarta into a worthy capital of the new republic. This plan included the development of waterfront for new

⁶ *High population, flood and poor sanitation had made the canals the source of stench and disease; there was constant malaria outbreak between 1730 and 1830 (Steinberg, 2007). Some plans were prepared by Dutch ruler in East Indies to deal with this problem including the relocation of government function and upper class (European) residence to higher land in city of Bandung, and also water management improvement.*

recreational activities⁷ in addition to other urban infrastructure.

Rapid urbanization started in 1966 accommodated by the second master plan of Jakarta called RTRW 1965-1985. For the first time the idea of addressing Jakarta as metropolitan region was recognized; taking in the surrounding cities this plan used satellite growth pole strategy to accommodate 7.5 millions of total metropolitan inhabitants⁸ setting up Jakarta into the megacity we know today.

Some of the impacts of the development were the drastically decreased public green open space which was steadily converted into private property or housing (Steinberg 2007, Kusumawijaya 2004) and intense urbanization creating high density kampongs and informal settlement especially in north Jakarta and the old waterfront.

The third master plan launched in 1987, RUTR 1985-2005, included three main goals of waterfront development: an economic development which will give benefits to the fishermen community, development of recreational function and the third was the maritime function. It was considered high time since problems in waterfront had started to surface: degradation of wetland, health

problems due to insufficient sanitation and solid waste problem, and also lack of urban infrastructure⁹.

In 1995, President Suharto issued the decision to redevelop the waterfront with the Presidential decree no.52/1995. The scheme of the waterfront redevelopment comprised 32 km Jakarta northern coast consisting of coastal reclamation for new urban centre on the waterfront with functions such as multipurpose harbor expansion, commercial and residential centre and recreational activities. The 1997 monetary crisis hit Indonesian economy and the plan was put in delay. The crisis was prolonged with national political turmoil, and even after, the redevelopment plan was deemed to fail in representing environmental and social concerns. The conflicting interest between environmental concerns and the socio-economical gain was represented in the legal dispute¹⁰ between institutional jurisdictions.

During the three decades of urban waterfront redevelopment planning, there were numerous plans commissioned by local government but implementation had been limited. Some redevelopment theme recognized in the waterfront redevelopment plans included heritage structures

⁷ In 1960 a presidential decree was issued for reclamation of Ancol area, between Sunda Kelapa and Tanjung Priok harbour, transforming the area into recreational and cultural centre. This was followed by the development Muara Karang and Pluit waterfront area for private housing.

⁸ According to this plan, Jakarta was to be developed within radius of 15 km from National Monument as the centre. This was also considered to be the start of the inland sprawling in Jakarta city, which might not be fully considered at the time. Jakarta grew bigger in such a short time with predominant north-southbound axis from old down town toward higher rural area. The central and southern regions were transformed into new growth centres with modern business districts, shopping facilities and upmarket housings

⁹ In 1990 the conflict of a reclamation project for private housing surfaced which forced the provincial government of Jakarta to pay more attention to the development trends in the waterfront area.

¹⁰ The flood disaster in 2002 put the reclamation plan under the spot light; many parties fear that it would worsen the already flood-prone condition in Jakarta regions. The debates escalated into political and jurisdictional gridlock when the Ministry of Environment which was part of the executive board rejected the Environmental Impact Assessment in 2003 and the matter was brought into the court. Later in 2004, the court decided to annul the ministry's rejection and the planning proceeded in motion.

preservation¹¹, water management improvement to reduce flood¹², and the land reclamation for housing and commercial districts¹³.

The delays in the progress were due to the multitude problems arising in the waterfront; the conflicting interests, the social issues (eviction of poor fishermen and poor community in the waterfront), the environmental problems (flood, land subsidence and salt water intrusion), the jurisdiction gridlock and the local government's lack of capacity¹⁴. The approach to sustainable redevelopment will have to consider all the above issues, requiring spatial and infrastructure, as well as, institutional capacity development.

The path toward sustainable waterfront development is still an ongoing discussion. Like many other cities, Jakarta needs to address its urban waterfront accordingly as part of urban identity, solution for the urban problems as well as to elevate Jakarta into a certain status of "world-class" city.

Key Issues In Sustainable Waterfront Redevelopment

Globalization and pressure of urban growth can be seen as the underlying cause of the waterfront movement in both developed and developing countries. These two

seemingly separated processes are working simultaneously affecting the nature of waterfront redevelopment. The growing interest of economic investment in waterfront influenced by globalization, the importance of addressing waterfronts as bio-region and the need to promote social value and cohesion underpin urban waterfront redevelopment today. Some key issues to overcome the challenges in the planning are highlighted below.

Economic diversity is more often than not the predominant factor in the development objective. Relocation to new ports and transforming old working ports into public modern districts often constitute massive environmental treatment and infrastructural change. Even more important is the new role of the urban waterfronts; how it contributes to further city growth. Zanzibar's Stone Town has been promoting heritage tourism, the legacy of ex colonial waterfront, as economic generator. Through preserving the unique heritage and spatial quality in the waterfront area, the waterfront were improved and developed. In the case of Dalian and Toronto, the waterfront redevelopment was an agent for spatial and economic restructuring by opening up a new spectrum of socio-economic activity in the new modern waterfront. Jakarta Northern Waterfront was developed initially as part of political statement of newly independent country, and after four decades, was found to be an opportunity of spatial restructuring to address many socio-economic and environmental problems.

The cities can be described as pursuing certain city status, to compete in the global

¹¹ This included the historic downtown, the old harbour of Sunda Kelapa and the surrounding urban area and Kampung Luar Batang

¹² This included improvement of the existing Banjir Kanal Sungai Besar (flood canal) and the plan for sea barrier development

¹³ The reclamation of several new islands along the northern coastal line, accommodating the development of high rise buildings of apartments, commercial and working area and also transportation networks

¹⁴ Interview with Rudi Tambunan, Corr Passchier and Urban Poor Community (UPC) in 2008

market, by utilizing their waterfronts to promote economic activities and economic investments.

Social identity of the waterfronts is constructed by the long history of their role as socio-economic hub, which shapes different community and physical settings. This has been increasingly appreciated in the global tourism industry. In the early times port cities flourished due to the waterfront role as trade hub made the community in constant contact with foreign influence. The legacy can be seen in many ex colonial towns, including Jakarta and Zanzibar, where cultural influence is manifested in the physical structures and spatial arrangement. Mix architecture and unique urban fabric, fisherman villages and traditional market are characteristics of these waterfronts. Their survival relies heavily on whether new roles are given to them in the modern tourism and trade industry.

Urban waterfronts in developing countries are also parts of town facing chronic social and environmental problems. Slums and squatters and the environment decline in Jakarta and Zanzibar had been major problem to attract investment. Urbanizing poverty is a problem in Jakarta, and the concentration of the urban poor in the deteriorating parts of the waterfronts put more burdens on the declining environment. The redevelopment scheme should address the poverty issue in the waterfront and furthermore be the catalyst for the betterment.

Shifting land use into tourism and consumerism industry made possible by the urban policy has been growing trend in the waterfront revitalization. Cultural and socio-

economic growths are tools to regenerate and sustain the waterfront districts. It can be said that relationship between cities and their waterfronts has been transformed spatially and functionally.

Reconciling the conflict of interests is paramount to the success of implementation. The revitalization of waterfront is situated in this overwhelming social context where city authorities have to devise an approach catering to different and often contrasting objectives and reconcile different actors involved in the waterfronts importance. Addressing complex environmental issue (such as pollution and flood) and sensitive social issues (such as livelihood of poor fishermen and poor community in the waterfront) needs cooperation and networks of different jurisdiction and scale of governments. In order to adequately perform, spatial restructuring needs to situate environment and cultural conservation within the projection of social change and economic development. The integrated approach, such as ecosystem approach in Central Waterfront Toronto, requires a momentum, financing resource and strategic planning and implementation. In Toronto case, the second environmentalist movement provides pressure and the right moment for considerable concern toward environment.

For all the reasons above, waterfront revitalization is of no short term objectives which require careful development direction and involvement. The objective is also subjected to **local institution capacity** in the planning and implementation, which is

recognized by Hoyle (2001) and Cohen (2007) as limited capacity. In Zanzibar case, the United Nation and foreign institution were the agent of change to help local capacity for the new destination of Stone Town waterfront. Governance and human capital are the main challenge (Hoyle, 2001) which may hinder effective, efficient and transparent communication and cooperation with private sector. The lack public involvement is also apparent as noted by Hoyle (2001) either due to lack of awareness or education, or lack of accommodating system.

The planning system and delivery mechanism are another challenge. For example, Iwata (2004) stated the lack of public places procurement in the waterfront due to weak planning system. The planning system for public place procurement needs to be reinforced by strong finance plan within the capability of governing institutions. Jakarta had been facing similar problem; piece-meal development by private investment along the waterfronts rendered the waterfronts problematic environment for spatial restructuring. The case of Toronto waterfront which devised a new model for public private partnership cannot always be readily implemented in developing countries.

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