A STUDY ON SOCIAL SUSTAINABILITY IN URBAN DEVELOPMENT

By

PARK, Bojeong

CAPSTONE PROJECT

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF PUBLIC MANAGEMENT

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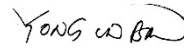In Partial Fulfillment of the Requirements

For the Degree of

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Committee in charge:

Professor Seulki CHOI, Supervisor

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Professor Dong-Young KIM

Approval as of December, 2018

ACKNOWLEDGEMENTS

The seasons return beautifully, and the joyous and brilliant days go a bit sad[1]. Thank you for everyone who was spending this lovely time with me for a year.

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[1] I borrowed this beautiful sentence from Kaori Ekuni. (1964~)

EXECUTIVE SUMMARY

BACKGROUND

Today, globalisation, societal restructuring and economic crisis have made cities the scene of challenges of segregation, inequality and polarisation. These circumstances lead to severe social problems caused by the discouragement of life. To increase the satisfaction of life quality, the growth of qualitative development which is considering social sustainability is in essence. Because of the concept of social sustainability includes social equity which is a help to release polarisation. However, a research on social sustainability is relatively inadequate compared to studies on environmental and economic sustainability. So, this paper is focusing on sustainability as the social aspect.

PURPOSE

This paper purpose to attract people's attention to social sustainability. So far, there was less effort to understand urban development in the light of social sustainability compared to others-Economic and Environmental Sustainability. Through the literature review, this research has tried to define the social sustainability and detect the contributory factors in urban context. To improve social sustainability, finding what planning methods are applied to each factor. Sought to find ways in which elements that enhance social sustainability could be interpreted and applied in physical form in the urban development process by suggesting a different approach compared to existing, having a meaning that opens up the comprehensive perspective of a city making.

METHOD

This paper explored two parts to help our community to be more socially sustainable. Firstly, investigate the underlying theoretical principles of social sustainability. Secondly, analyse the practising social sustainability with particular reference in the urban context through a case study. Over the process, examine that how the key factors of social sustainability are applied to urban development case in abroad. To understand Social sustainability and to find the answer to the question above, this paper conducted a review of the current literature on the topic, collected and analysed research then performed a conceptual frame analysis. With this information, this paper summarised its significant findings and prepared recommendations for stimulating sustainable development to Korea.

KEY FINDINGS

Social sustainability in urban context includes diverse factors and there are difficulties to define what exact meaning of social sustainability. Nonetheless, social sustainability consists of social equity and sustainability of the community following the previous studies. Accessibility and quality of life are used to measure the two elements of social sustainability. To improve the accessibility, the case was using the come and age mixing principle. Also, to enhance the neighbourhood and to advance the quality of life, they suggest that the place is available to having more security, community identity and social interaction.

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ABBREVIATIONS

WSSD: World Summit on Sustainable Development

TBL: Triple Bottom Line

SEFC: Southeast False Creek

ODP: Official Development Plan

SFC: South False Creek

CPTED: Crime Prevention Through Environmental Design

INTRODUCTION

1. Situating Urban Problem

Today, 55 per cent of the world's population lives in an urban area, a proportion that is expected to increase to 68 per cent by 2050. Among 60 per cent of new urban settlements are yet to be built, allowing a tremendous opportunity for making resilient cities[2]. However, for the moment, globalisation, societal restructuring and economic crisis have made cities the scene of challenges of segregation, inequality and polarisation (European Union, 2011).

The situation in Korea is not different as well. Since the 1980s, Korea also has been implementing urban development to release the problems city encountered which is caused by population overflowed. Nonetheless, Korea Urban development strategies have tended that to concentrate on quantitative expansion rather than qualitative growth[3]. Through the tendency biased to the quantitative event, Korea cities have reached the quantitative accumulation of wealth for a short time. As a result, socio-economic problems, such as urban poverty, social polarisation, deterioration of welfare, relatively generated (Song and Yim 2015).

To increase the satisfaction of life quality, the growth of qualitative development considers social sustainability in essence. Because of the concept of social sustainability includes social equity which is a help to release polarisation. This report focuses on the perspective of social

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[2] The Population Division of the United Nation Department of Economic and Social Affairs(UN DESA) produced the 2018 Revision of World Urbanization Prospects.

[3] If the quantitative event means that increasing the number of populations, the size of the economy and expanding the physical capacity of the city area, the qualitative development represents that quality of urban life.

sustainability to release these socio-economic problems related to social polarisation and social equity.

In spite of social sustainability would be the essence of the growth of qualitative development, While the broader about environmental and economic sustainable development, the studies focus on social sustainability is a relatively limited (Dempsey et al. 2009).

2. Background of the Problem

Sustainability first appeared since 1980s, is broadly used the term as significantly influenced urban policy and development. According to the Brundtland report, definition of sustainable development is "Development that meets the needs of the present without compromising the ability of future generations to meet their own need" (Brundtland 1987). However, it has been expanding its concept as the various layers. At the 2002 World Summit on Sustainable Development (WSSD), the consensus about Triple Bottom Line (TBL) had made, which was that sustainable development is the balanced development among economy, environment and society.

In other words, sustainable development is the term that means the comprehensive development strategy concerning the growth of not only the economy but environmental protection and society (Lee 2010)(Song and Yim 2015).

There are many works of literature researched on an economical and environmentally sustainable development project reflecting these two sustainability elements. Regarding environmental sustainability, European countries like German and Netherland exerted to construct Ecological Housing Estate which was to relieve environmental pollution. Through design factors like the utilising rainwater system, transportation system reflecting animal's

behaviour have been evaluated valuable element to keep its sustainability (J.-E. Choi, Seo, and Oh 2008).

In the sight of economic sustainability, in the UK, conducted sustainable urban regeneration projects containing the facilities of culture, social welfare, community and leisure. The mixed-use waterfront development in Brindley place in Birmingham contributed region's vitalization and created value added in economic sight (Lee 2008). However, there is little literature regarding the aspect of socially sustainable development. According to author Barclay and Colantonio (2002), it is because the concept of social sustainability is too comprehensive and abstract to measure, and also there is a lack of recognition of the role of social factors in sustainability (Song and Yim 2015).

So, this paper explored two parts to help our community is more socially sustainable.

1) Underlying theoretical principles of social sustainability

2) Practising social sustainability with particular reference in the urban context through a case study

3. Research Question

Therefore, the collected objectives for this paper is to answer the following questions:

  1. In academic works of literature, what details are described and explored as social sustainability?

  2. How the elements which is defined as the social sustainability has been implementing in the contemporary urban development?

  3. For the practising the elements in the urban development, what efforts were performed in the Vancouver urban development?

Field Research Method

1. Methodology

The research performs theoretical analyse about social sustainability through the literature review and explores the specific study which is achieved social sustainability in the urban development context. The theoretical part was composed of a literature study of contemporary academic articles concerned with defining or discerning the meaning of social sustainability. The literature study aimed to orientate between different understandings of social sustainability and determine a sense that was relevant for contemporary urban development.

The empirical part consisted of qualitative case studies of an urban development project with social sustainability. The choice of qualitative case studies is based on an investigation of the actual planning practice as expressed and experienced in the planning process.

Step 1. Define the social sustainability in the urban context

Step 2. Set the frame for analysing the case city

Step 3. Select the city which was evaluated socially sustainable developed

Step 4. Explore what elements are applied and how it could have been worked

Step 5. Find out key factors and suggest policy to reflect through this research finding

A qualitative methodology is often useful for studying fields that involve the complexity of social interactions with values and norms as some of these dimensions will not lend themselves to quantification (Ahrne et al. 2015). For the investigation of the highly value-laden concept of social sustainability, and its interpretation in planning processes at municipalities, the qualitative methodology was therefore found suitable. Briefly, this paper explains the

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document using the socially sustainable structure and finally finding out the key for an informative result. The following section provides an overview of existing social sustainability and a survey of related concepts within the urban context.

2. Literature Review

2.1. Social sustainability and Sustainable development

There is little literature focuses on social sustainability, while the wide range of research includes the concept of social capital, social cohesion, social inclusion and social exclusion (Dempsey et al. 2009). Social sustainability is a broad multidimensional concept with the fundamental question "what are the social goals of sustainable development". There was no consensus on how the social goals defined, so an answer of inquiry is to open multiple (Hopwood, Mellor, and Brien 2005). Yiftachel and Hedgecock(1993) highlighted urban plan which is focusing on three principles - equity, city community and recovery of urbanism (Song and Yim 2015).

The definition of social sustainability by author Barron and Gauntlett (2002) at WACOSS (Western Australia Council of Social Service) had well explained as social sustainability in the urban development context. Social sustainability highlights the importance of formal and informal dimensions, system structures and processes supporting the current and future health and livability of communities, which is connected to the notion of inter and intragenerational equity (Song and Yim 2015). Davidson and Wilson (2009) examined the three different dimensions of perspectives of social sustainability in their research. From a development-oriented standpoint, development is socially sustainable in maintaining social relations, customs, structures and values. Development has been sustainable from an environmental point of view if it satisfy the social conditions, norms and preferences required to support

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ecologically sustainable behaviour on resource allocation and intergenerational equality. Also, as the aspects of people-oriented attitude, when emphasize maintaining the level of social cohesion and preventing social polarization and exclusion, it considered socially sustainable (Mak and Peacock 2011). Table 1 is contributory factors which are identified in the previous literature reviews.

TABLE 1 PUBLIC OPEN SPACES AND PROGRAMMING

Criteria	Factor	
	Non-physical	Predominantly physical
Equity	Social Justice Fairness Equality Distribution of rights	Fair access
Diversity	Inclusion Reconciliation Harmony Social Integration	
Interconnectedness	Community Interaction Social relation Social capital	Neighbourhood
Quality of life	Well-being Security Stability	Living condition
Democracy and governance	Adaptability Political participation	

Contributory factors as reorganised in the literature review. Sources referred (Dempsey et al. 2009; Song and Yim 2015)

2.2 Conceptual Frame for the study

Table 1 shows contributory factors which are related to urban social sustainability as reorganised in the literature review. However, the wide-ranging multidimensional concept of social sustainability makes difficult practical approaches. In order to visible measurement, the primary dimension of social sustainability identified equitable access and the sustainability of the community itself(Dempsey et al. 2009). Accessibility to facilities and service is generally cited as a essential measurement concerning measuring social equity (Barton 2000a; Burton 2000b). Accessibility of them is not only meaning that the actual provision but also meaning by the resources of accessing them. The services and facilities are used to be considered as elements to conclude the quality of a neighbourhood.
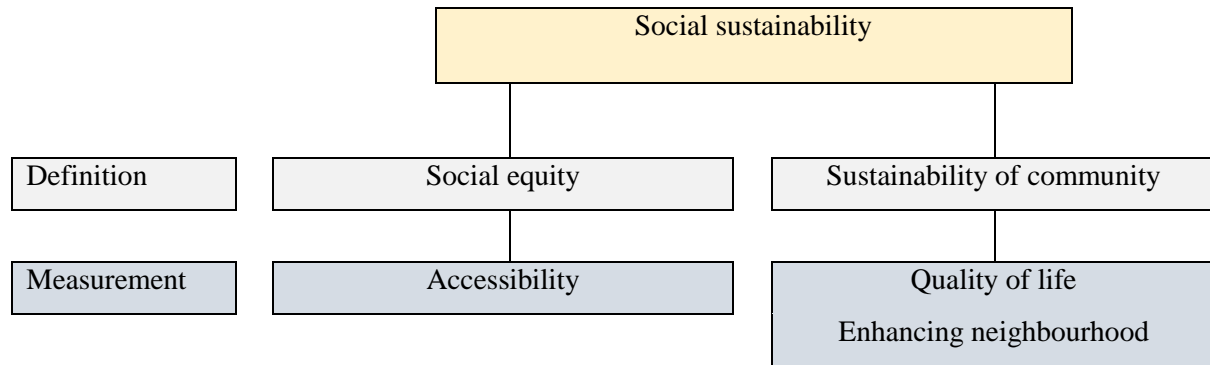
On the other hands, the sustainability of the community relates to the common aspects of social life. Dempsey et al. (2009) suggest five dimensions that inter-related measurable elements of community sustainability, which are

- Community stability

- Pride/sense of place

- Safety and security

- Social interaction and networks

- Participation in collective groups

This paper explores the actualisation of social sustainability in the urban context after defining the social sustainability, two measurement – equitable access and the sustainability of the community – considered significantly. For the project efficiency, regarding that, both five dimensions as two measurements categorise reflecting its correlation. So this paper classifies the Safety and security and Community stability is represented as a quality of life, and other

are related elements for Enhancing neighbourhood. Figure 1 is a conceptual frame to perform

the analysing the selected example regarding these two dimensions based on categorised above.

FIGURE 1 CONCEPTUAL FRAME

Social sustainability		
Definition	Social equity	Sustainability of community
Measurement	Accessibility	Quality of life Enhancing neighbourhood

3. Case Study

3.1 SEFC

Southeast False Creek (SEFC) is the development project where the old waterfront industrial complex changed to the urban community in Vancouver, Canada. The place was the severely polluted due to the landfill of industrial wastes and soil pollution, because of its historical used as an industrial site for Asphalt product, Steel Manufactures and Garbage disposal.

The project started when Vancouver city announced the public policy for SEFC in the 1990s after the reclaimed the coast. Through the participatory of experts and citizens, they had specified the concept of a sustainable urban community until 1999. Then, established SEFC Policy Statement for SEFC planning, design guidelines and core principles.

The Official Development Plan(ODP) finalised 2003 and Construction had been preceding before the 2010 Vancouver winter Olympic (J. H. Choi, Kim, and Kim 2009). The ODP for SEFC is object to establish a foundation of urban design principles which are considering 3 pillars of sustainability to enable the SEFC development as a positive community. Based on the document, this paper examines that the crucial factors influenced social sustainability in this project.

FIGURE 2 OUTLINED AREA OF SEFC

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4. Social sustainability
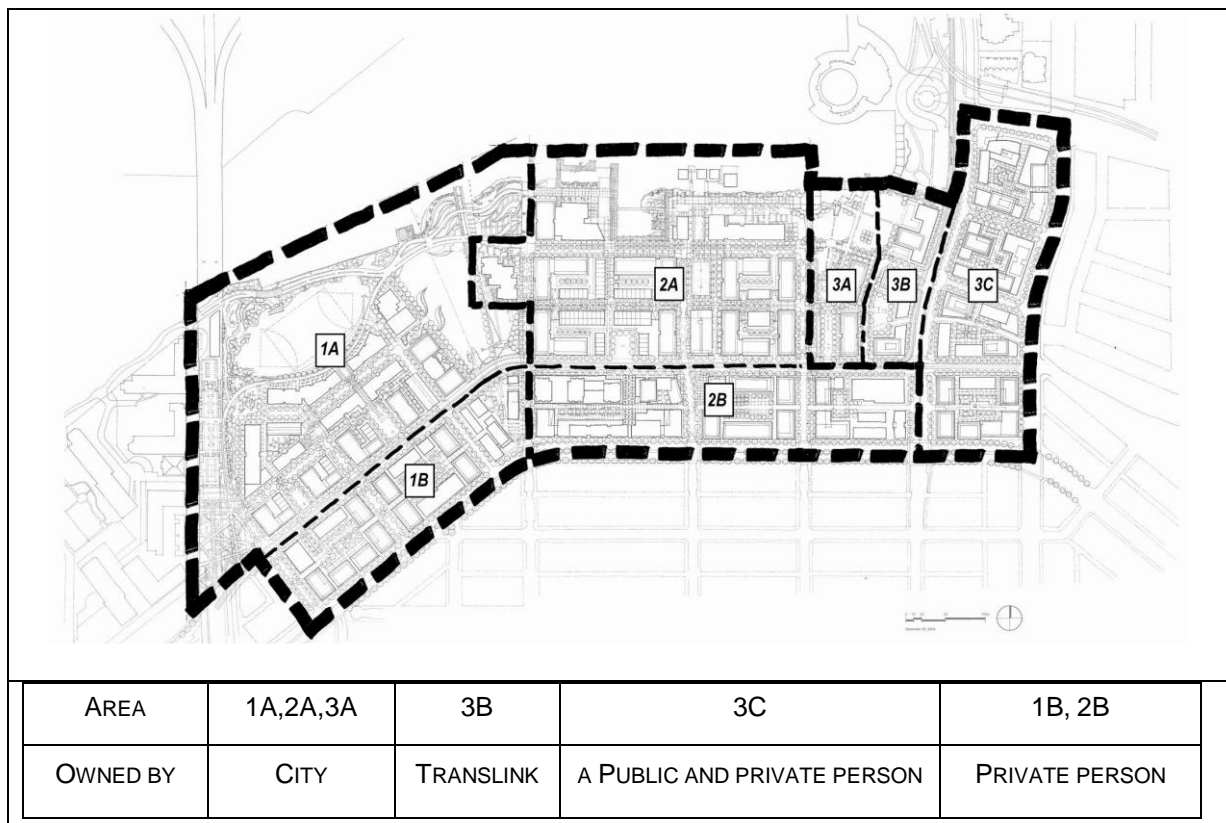
4.1 Social Equity

4.1.1 Accessibility

Accessibility entailed the meanings either actual provision of services and facilities or by means to accessing them (Dempsey et al. 2009). To people get the same opportunity to use an equivalent level of service and facility, a coexistence of all income distribution group is necessary for the same community. If there are any obstacles which make the weaker income group moving into the community, they could be easily excluded that using the services and facilities.

Equity is often easily ignored in developing process because of economic priorities. However, the city has intensive objective to be a high level of social sustainability, considering equity as a top priority. To endow with the same opportunity approaching public services and facilities, ODP proposed to make a living environment mix of ages and income. Through the guideline that each of area has specific limitation to combine various housing type[4], to motivate a well-balanced community with broad social mix and access to housing by all income-sharing groups

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4 The units of dwelling designed to be affordable to person dependent. It divided three level of housing type. Firstly, Affordable housing is for person make up a core needs household where household where such persons pay more than 30 per cent there combines gross annual income to rent. Which is an adequate and suitable rental unit and also to meet the basic housing needs of household at an average market rent including utilities. Second type is "Market housing." This is for whom make up a household, and whose connected gross annual incomes fall within the upper third of income distribution for the Greater Vancouver region published by Statistic Canada, in the then current Canada Census at the time of any applicable CD-1 rezoning. The last one is "Modest housing." This is for someone who mixed gross annual incomes fall within the middle third of income distribution referred to in the previous definition (Vancouver 2007).

The area 1A,2A and 3A combined, which are owned by City, need to comprise affordable housing at least 20% of the house its area. Also, the objective of combined area 1A and 3 is to increase this ratio to 33 per cent for affordable housing and another 33 per cent for modest market housing, subject to finding a different funding source. In area 2A, the objective is to achieve a ratio of 33 per cent by working with developers to increase social mixing. Furthermore, within areas 1A, 2A, 3A and 3B, they also considered affordable family housing as aiming to achieve a 35 per cent household mixing for families, and within areas 1B, 2B, and 3C is purpose 25 per cent for families (Vancouver 2007).

FIGURE 3 PRESENTS AREA BY ITS OWNERSHIP.

AREA	1A,2A,3A	3B	3C	1B, 2B
OWNED BY	CITY	TRANSLINK	A PUBLIC AND PRIVATE PERSON	PRIVATE PERSON

Source: City of Vancouver et el, 2006

The general goal is accomplishing a balanced household by mixing accommodations which are a wide range social groups reflecting ages and income, and includes family type and needs even if there are no specific goals for other families with the disabled and the elderly.

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The effort to income and housing mix method seems to impact on social equity. In the case of the False Creek South (FCS) project which reflect original principles of SEFC, the supplement of the affordable housing seems useful to social equity through the social mix. Referring to the FCS Profile 2017, the distribution of population 45 years of age and older at 61 per cent compared with Metro Vancouver at 44 per cent.

TABLE 2 2016 POPULATION BY AGE GROUP

AGE GROUP	FALSE CREEK SOUTH	VANCOUVER	METRO VANCOUVER
0-19	13%	16%	21%
20-44	25%	42%	35%
45-64	31%	27%	29%
65+	30%	15%	15%

Source: 2016 Statistics Canada Data

4.2 Sustainability of community

4.2.1 Quality of life

Safety and security

Safety and security are one of the crucial factors to maintain the community healthily. SEFC also considered these values as the one main factor to keep the community is socially sustained. The design of a building is to neighbourhood safety to using a concept of 'eyes-on-the-street'. CPTED, crime prevention through the Environmental Design (CPTED) is one of design technique to prevent crime, is reflected ODP for community safety. The planning process is places special attention to the lighting and detailing of the parks and other open spaces. Also, suggest that entrance of the housing directly faced with the roads or public realm and also constructing high wall is limited.

Having a passing line through the building surrounding open spaces is make that walking people, or visitors can reach all corner of the community. Developing an easy and safe green area that enhances the quality of life for residents and visitors is the goal of improving wellbeing and security and safety. (Vancouver 2007). This design principle is performing at planning for community facilities as well as hierarchy street system.

FIGURE 4 APPLICATION EXAMPLES 'EYES-ON-THE-STREET'
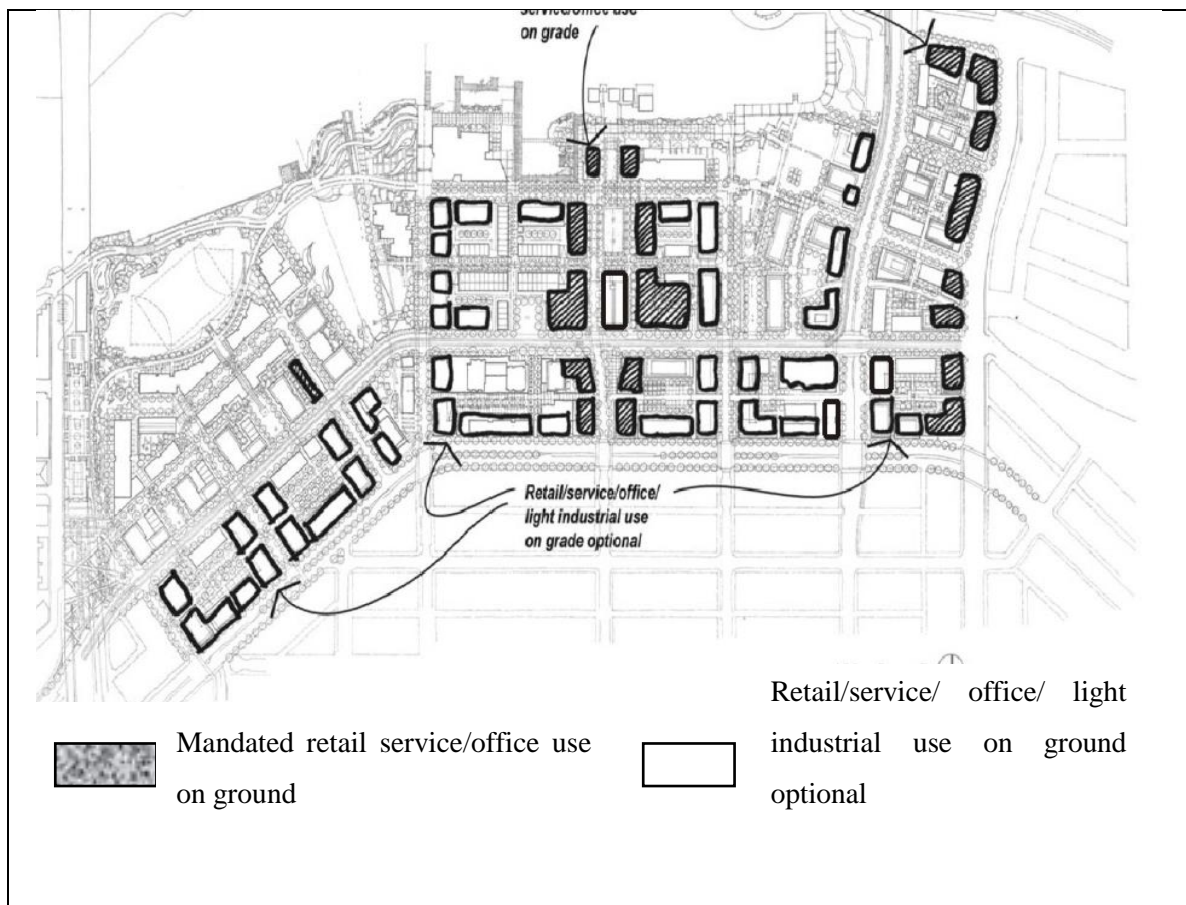

SOURCE: CITY OF VANCOUVER ET EL, 2006

Retail, service and office use

In accompany with using CPTED, ODP instructed a particular plan for a ground floor. The design concept based on mixed-use building, the planning represents that retail and office have to located on the ground floor. The mixed-use building design can functional dispersion of that kind of service facilities, and the various activities can be generated along the street connected in the community.

On the other hands, it also influenced economic security. The mixed-use building creates an environment which is possible to live- work, work-live system. The facilities mentioned above give convenience to residents, at the same time, it also serves a working place for residents.

The goal was to create a variety of career opportunities in the construction process. To operate retail, service, and office operations in many parts of the community, the community must provide good quality of licensed care so that parents can participate in the workforce. It encourages participation in the construction process to promote equitable employment practices and ensure unemployed representatives in low-income communities.
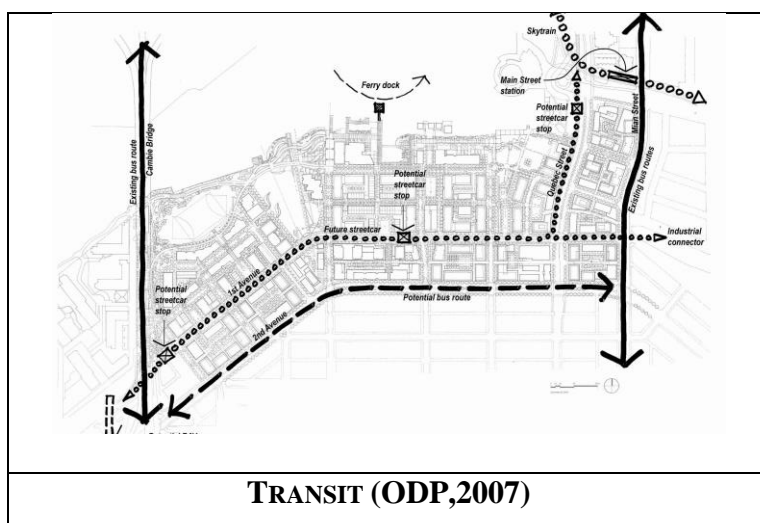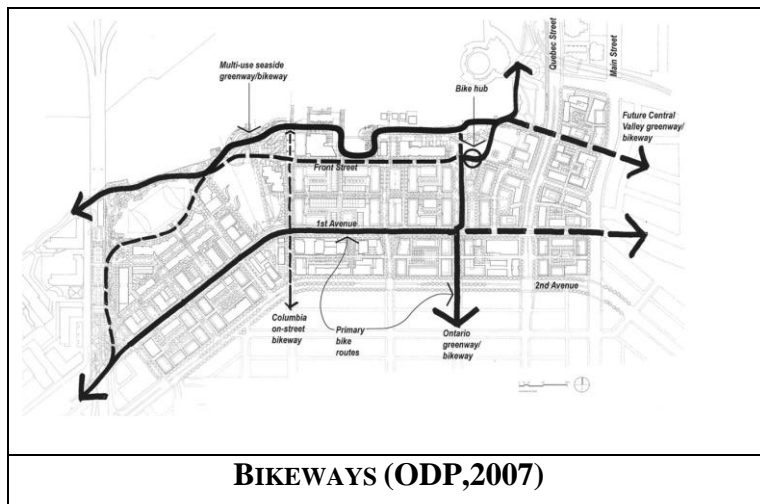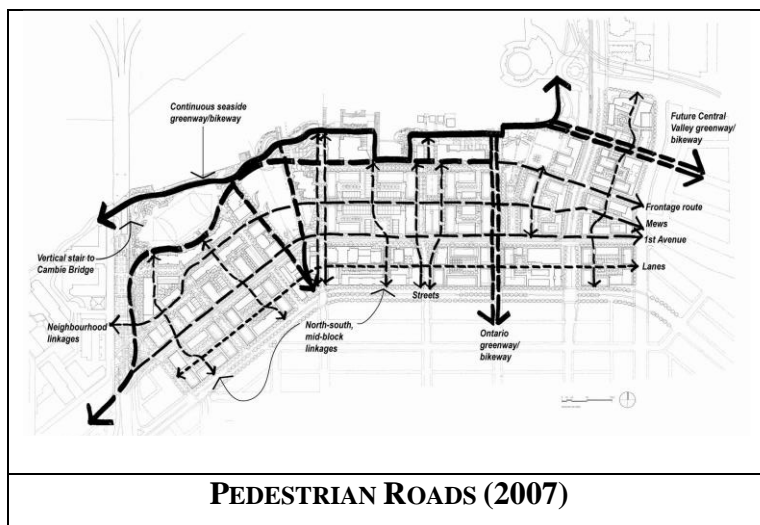
FIGURE 5 PLAN FOR RETAIL, SERVICE AND OFFICE USE ON THE GROUND

Source: City of Vancouver et el, 2006

Hierarchy street system

FIGURE 6 STREET SYSTEM

PEDESTRIAN ROADS (2007)

BIKEWAYS (ODP,2007)

TRANSIT (ODP,2007)

The Movement within the community is essential. It is possible, and limited, to be active. SEFC separate street system is reflecting the movement following the mobility means. A pedestrian routes design makes interconnecting in every corner of the community without bothering of vehicles. The routes connect from a wide road to narrow, and it also serves people can quickly get to the waterfront. Bicycle road is constructed alongside with seawall, and it has a role in extending the trail to out of the community. Including waterfront space, all of the public spaces are connected with pedestrian routes and Bicycle way. However, vehicle roads are excluded within the community. This hierarchy road system

guarantees the autonomy of movement by combining each other but eliminating interference. Furthermore, safer environment guaranteed by the principles focused on the pedestrian, cycling and transit facilities impacts on decrease automobile dependency and reduce greenhouse gas transportation emission. In other words, the hierarchy street system act on community safety which is the measurement of social sustainability meantime it also affects environmental sustainability either.

4.2.2 Enhancing Neighbourhood

Community identity

As it mentioned above, the SEFC has been industrial area since the late 1800S. This area was used for the City's public works yard as well as others which was representative industrial - metalworking, salt distribution, warehousing, foundries and sawmills. Also, it has the heritage value that the area resides in its pre-settlement natural history, First Nations history, and post-settlement history as an industrial area. ODP suggest that respecting history and context of SEFC in a manner to encourage identity, vitality, and cultural richness. For example, the salt building is distinctive historical landmark within SEFC. This building historically used to refine sea salt for over 50 years before being a paper recycling plant, since the 1930s. They preserve the Salt building in its original location and try to recognise the historical patterns of former industrial use. Also, they try to understand the historical connection to the False Creek waterfront. Today, although the function of the building was changed, under effort which is to maintain its historical identity, the place can deliver the historical atmosphere to resident and visitor.
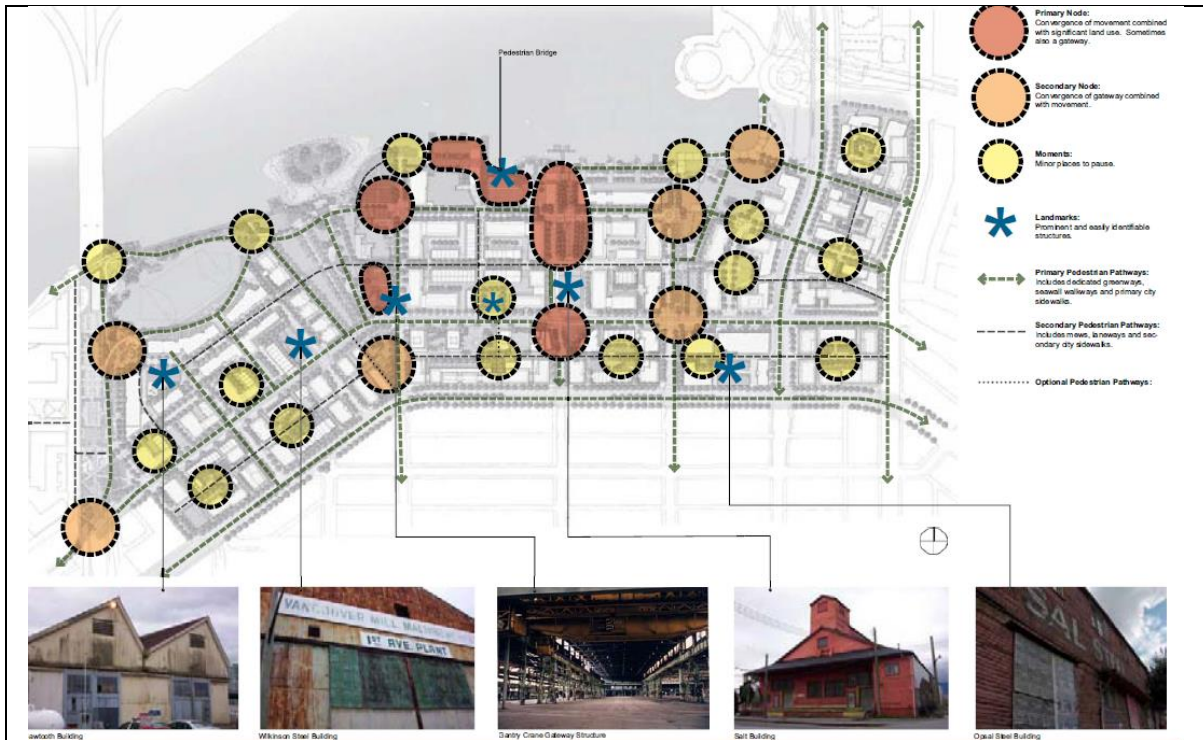
In other words, the effort to preserve its heritage and revitalisation give identity to the community, meantime it being an element to attract people to inside. In addition, there are several plans to reuse relics place as landmarks or nodes of the community.

FIGURE 7 SALT BUILDING (PAST AND PRESENT)
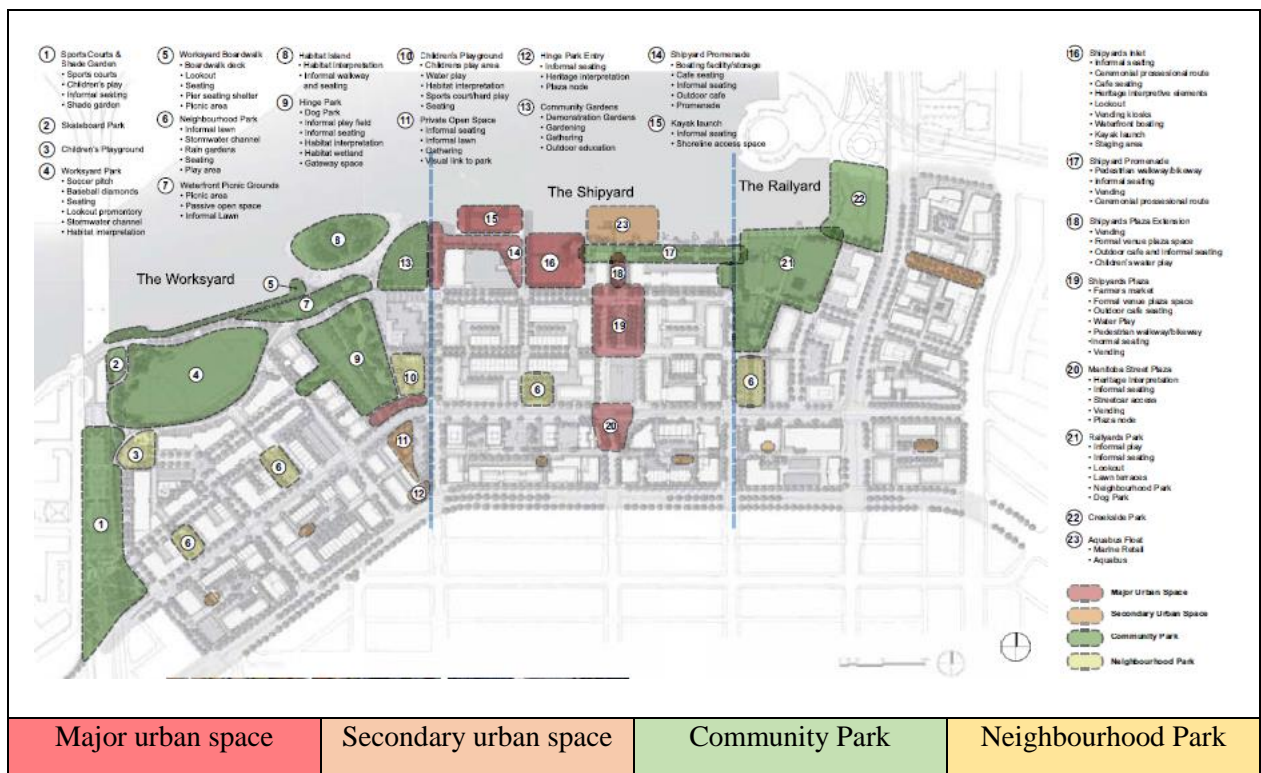
FIGURE 8 HISTORICAL BUILDING USED FOR LANDMARK

Social interaction/Networks

To encourage interaction between people, SEFC is design various type of open space. Depends

on the location, size and its unique, open spaces identified four different categories. Referred

to figure 9, a primary node is a place for the landmark, and also significant urban space has created the centre around it. In the major urban space, activities-are mainly happen those informal seating, indoor/outdoor café seating, a relative action for boating and farmer market and so on.

This place serves casual work which is happened daily based. The secondary urban space is a hub for marine activities including Aqua bus which is eco-friend transportation for a commuter to False creek north.

FIGURE 9 PUBLIC OPEN SPACES AND PROGRAMMING FOR NETWORKS

| Major urban space | Secondary urban space | Community Park | Neighbourhood Park |

Source: City of Vancouver et el, 2006

The community parks are the most impressive feature to promote social interaction. Parks are being constructed alongside with waterfront, integrating people to near the waterfront. By attracting people from the out of the community to waterfront, built a network between in and out of the community. Also, it has a function in supporting the activities those play with

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children and dogs, sports game and picnic. Through the activities, the residents and visitors have the opportunity to exposure to communicate with others, increasing interaction also.

To intense the social network and interaction, the neighbourhood also planned outdoor public space as well as indoor public place. The plan designed the community centre where it has a strong sense of place. The area is close to the one of significant urban space and waterfront street. The community assists various services combined recreational boating which is using a non-motorized boat and also day-care facility to animate the waterfront. An elementary school is locating within easy walking distance, which may include more childcare and after-school care. Front Street is a coastal street that can provide access to schools and parks as well as community centres. In other words, by excluding a monopoly which is usually occupied by rich people who want to have a great view, neighbourhood deliver its best place where is faced with waterfront with the public.

FIGURE 10 COMMUNITY CENTRE FOR SOCIAL INTERACTION

SOURCE: MILLENNIUM WATER, 2010

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Analysis and Finding

Social sustainability in the Urban Development context

Still, there are many arguments defining concepts of social sustainability in the urban context. Relates to a fundamental question about social sustainable- "what are the social goals of sustainable development"-, an issuing social goal in each society could be different because of its environment. Besides, Social sustainability includes various invisible values which are technically difficult to evaluate its realisation. Nonetheless, compared to other pillars of sustainability, the perspective of social dimension can be difficult actualised by the physical elements in urban development.

As we have seen before, there were various concepts of composing social sustainability. Factors were categorised by Equity, Diversity, Interconnectedness, Quality of life, Democracy and governance following its characteristic. Also, it was distinguished non-physical and Predominantly physical. Among the factors, considering that social equity and sustainability of the community itself is the primary dimension to evaluate achieving social sustainability in the urban context. Technically, social equity realised as accessibility in the community and sustainability of the community emerged mainly as a composition which is quality of life and enhancing the neighbourhood.

In the practical case study, these contributory social sustainability factors operated each step of development and affected decision making for policy.
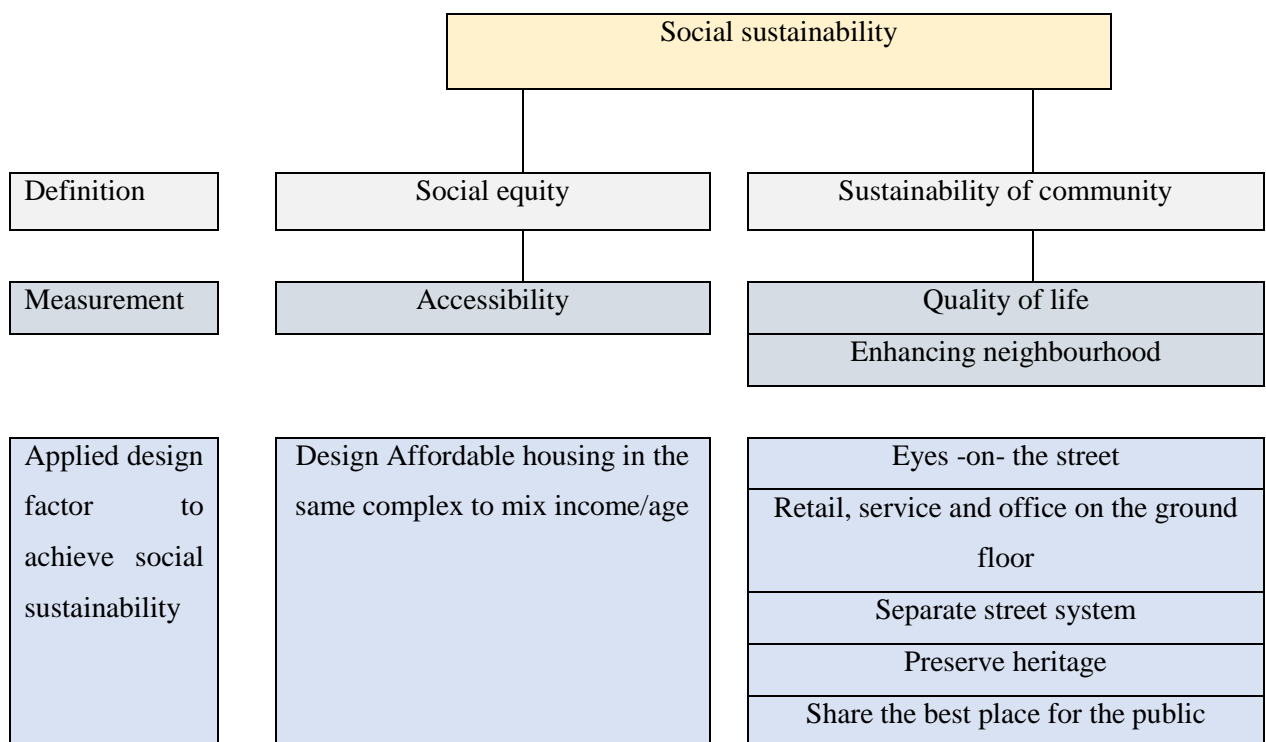
Social Equity

Equity, one of the main factors presenting social sustainability is measured as accessibility. Allowing that everyone can approach the same level of services and facilities is merely having the physical meaning of "accessibility". The case in this paper made a comprehensive effort to achieve the accessibility which means not only open the place to the public or remove the barrier to enter but also by choosing the way that mixing various social grades. To accomplish social association, they designated the specific rates of social housing which is for mixing incomes and ages. Regardless of the type of developer, even private sectors had to supply social housing- affordable housing and modest housing- in SEFC. Designed various housing types reflecting family size or some children, used several funding systems to support their financial status. By lowering the entry barrier of such community, society tried to share the advantage which came from the living in the better habitat. Practically, this mixing tenant strategy is the essential element to build other design factors to the community making at the same time be able to take the same advantages. It protects secondary discriminations cause by living area in which is applied differential policy effectiveness.

Sustainability of community

Increasing the quality of life and enhancing neighbourhood are factors to define that community is sustainable. Life quality usually is determining from the various elements of city making. As a particular effort, SEFC used 'eyes-on- the street' design principle to protect the city's security. The entrance, as well as retails, services and offices, are locating along the streets, people can easily observe the activities which happened on the street every day. Hierarchy street system is also influencing positively to 'eye-on-the-street' design principle. Through excluding the circulation of the vehicle promotes interactions more intensified

between people by suggesting a proper walking condition. It makes the results that feel secure and safer community to people. Social interaction is in effect quality of life, internally. Moreover, it also affects that enhancing neighbourhood. The place which has vitality is used to attract people from the outside of the community. Given site which is built for social networking can serve events like a local market, regional festival, sports game and outdoor cultural performance. Historical places also have a similar role as an attraction to people in and outside of the community. The effort that was preserving their heritage generated a community's identity and acting as a fascinating factor, and it leads to promoting economic activities in the area by visitors.

FIGURE 11 APPLIED DESIGN FACTORS IN SEFC FOR SOCIAL SUSTAINABILITY

	Social sustainability	
Definition	Social equity	Sustainability of community
Measurement	Accessibility	Quality of life
		Enhancing neighbourhood
Applied design factor to achieve social sustainability	Design Affordable housing in the same complex to mix income/age	Eyes -on- the street
		Retail, service and office on the ground floor
		Separate street system
		Preserve heritage
		Share the best place for the public

Policy Recommendation

This capstone is having a meaning that analysing urban development project using a view of a socially sustainable approach. Same as SEFC, Korea also has been applying the design factors to promote social sustainability. Nevertheless, polarisation in Korea is getting because efforts to increase social sustainability tend to focus solely on a formal process. Besides, many obstacles are existing which is economic feasibility take priority over public concern during the process from the planning stage to the construction stage.

SEFC lessons to us that to reflect social sustainability each of development stage, it needs careful consideration and cooperation of stakeholders. In the real, SEFC still has been concerning ODP's specific tasks to improve its social sustainability until recently. Consequently, the constant interest in social sustainability, efforts for improvement and to provide feedback are of the utmost importance.

In this capstone project, only the interpretation of urban design as a socially sustainable concept performed without any numerical result from the follow-up. So, it cannot conclude that the design factors which is applied for improving social sustainability whether has a practical impact or not. Also, compared with Korea, the scale of urban development is very different, so there is a limit to applying the design elements used in the case. Nevertheless, since I think that the contents of the city should be continued from the viewpoint of social sustainability, recommend that instrument which raises the perspective of public interest in urban development.

First, demand for normative definitions of social sustainability that must be considered in the urban development process.

Second, suggest the institutional arrangement to check the publicness in the process of urban development so that the economy does not neglect it.

Third, set up a device to increase social sustainability and to establish a procedural mechanism that can continuously verify and improve its effectiveness.

Reference

An, Seunghyeok, Jaehong KI, and Soonjin Yun. 2017. "The Use of Indicators for Evaluating Urban Sustainability: A Comparative Analysis of Korean and International Major Cities". Kaser 27(4): 183-217.

Bramley, Glen, Nicola Dempsey, Sinead Power, and Caroline Brown. 2006. "What Is 'Social Sustainability', and How to Do Our Existing." In PLANNING RESEARCH CONFERENCE, 1–40.

Brundtland, Gro H. 1987. "Our Common Future: Report of the World Commission on Environment and Development." United Nations Commission. Vol. 4. https://doi.org/10.1080/07488008808408783.

Choi, Joung-Eun, Dong-koo Seo, and Deog-seong Oh. 2008. "Analysis of German and Netherland Ecological Housing Estate's Design Factors and Application Possibility of within the Country in the Sustainable Development - Focused on Complex Design Factors ." JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design 24 (12): 27–38.

Choi, Jung Hee, Ki Yeon Kim, and Ki Ho Kim. 2009. "A Study on the Urban Waterfront & Sustainable Development-Focus on the Cases of GMV and SEFC." JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design. Vol. 25.

City of Vancouver. Southeast False Creek Official Development Pan. 2007.

Davidson, Mark. 2010. "Social sustainability and the city". Geography Compass. 4(7): 872-880.

Dempsey, Nicola, Glen Bramley, Sinéad Power, and Caroline Brown. 2009. "The Social Dimension of Sustainable Development: Defi Ning Urban Social Sustainability." Sustainable Development 19 (May 2009): 289–300. https://doi.org/10.1002/sd.417.

Hopwood, Bill, Mary Mellor, and Geoff O Brien. 2005. "Mapping_Sustainable_Development" 13 (2): 38–52. https://doi.org/10.1002/sd.244.

Kim, Kyung-bae.2004. "A Case Study of the Southeast False Creek (SEFC) Urban Neighborhood Design Project ". 43-79.

Im, YangBin. 2009. " A Study on Sustainability and Relevance to Elements of Ecological Housing Complex". JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning &Design. Vol 25 (8): 313-320.

Kim, Jongkon and Deogseong Oh. 2007. " Analysis on the Sustainability and Design Strategies of German Ecological Housing Estates according to Development Stages". Journal of the Urban Design Institute of Korea Urban Design. Vol 8(4): 105-134.

Kim, Sunghwa. 2011 "A Study on the Urban Design Controls and the Characteristics "
Guidelines in Hong Kong - Implications for Daegu Area", JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design. Vol. 27.

Kim, Young-hwan. 2008. "A Study on the Characteristics of Culture-based Waterfront Regeneration. JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design. Vol 24 (8): 207-216.

Kwon, Kyungduk, Yongchul and others. 2012. " The Promotional Plans of Citizen Participation in the Process of New Urban Development". JOURNAL OF THE KOREAN REGIONAL DEVELOPMENT ASSOCIATION. Vol 16 (3): 1-23

Kim, Hye-Jung. 2012. " Post Occupant Evaluation of Residents' Participation Community Design - Focused on the Cases of Seoul". JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design. Vol 28 (6): 65-74

Lee, Namsu and Jungun, Dong. 2001. "A Study on the systematic design Process of Ecological Residential Estates - Based on Importance of the Ecological Design Factors". JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design. Vol 17 (4): 31-38.

Lee, Kumjin. 2008. "The Mixed-Use Waterfront Development for Urban Regeneration and Regional Revitalization: A Case Study of Brindleyplace Birmingham." JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design 24 (3): 33–42.

Mak, Michael Y, and Clinton J Peacock. 2011. "Social Sustainability : A Comparison of Case Studies in UK, USA and Australia." In 17th Pacific Rim Real Estate Society Conference, 16–19. https://doi.org/10.1016/j.actatropica.2013.11.019.

Min, Bo-Gyeong. 2017. " A Study of Urban Form for Enhancing Social Sustainability: Exploring the Association between Density and Social Diversity in Neighbourhoods. Journal of the Korean Urban Management Association. Vol 30 (1): 117-140

Song, Juyoun, and Seokhoi Yim. 2015. "Theoretical Exploration of Social Sustainability for the Qualitative Development of Cities." Journal of the Korean Geographical Society 50 (6): 677–94.

Shin, Jae woog. 2013. " On the Improvement of Participation System in New Town Planning Process: Focused on the Masterplan for construction about Sejeong Special Self-Governing City". Journal of the Korean Urban Management Association Vol 26(1): 89-115

Tracy Vaughan. 2008. "Collaborative Practice Towards Sustainability: The False Creek Experience". Simon Fraser University.

You, Dongsang and JeongBin Yim. 2016. "A Study on the Relative Effectiveness of Citizen Participation in Urban Policy Decision: Urban Structure, Political System, and Citizen Participation in Florida". Korea Society and Public Administration. 26(4): 311-330