



Sustainable Empowerment as a Tool to Activate Brownfield

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Abstract:

The redevelopment of brownfields participate to sustainable urban development, it can make cities more valuable worth for community and more attractive for companies to settle down their projects through investment, and it can help to reduce expenditures for the construction of infrastructures and other services. Recent studies in brownfield redevelopment and investment have shown great interest in urban planning studies because of their negative effects on cities, they promoted sprawl, pollution, social and economic problems. There is a general agreement among researchers and experts that brownfield sites can be reused as green spaces, commerce centers, and residential projects. To promote sustainable urban development the role of the community must be strengthened and enabled to participate in the development process. The partnership between stakeholders such as community development organizations and investors are critical to promoting both communications and build confidence, which are important elements to a sustainable redevelopment program. The paper Highlights the role of community participation including society, public-private sector and local organization in activating brownfield projects through analysis several projects, from this analysis we point out that most of the brownfield project need huge corporation between community and public and private sector in addition to various disciplines such as urban planning, policy management and economic and environment aspect

Keywords: Brownfield, Community Participation, Sustainable Enablement, Sustainable Community.

Introduction:

The neglected land reclamation was promoted as a regional policy tool in the 1960s, local authorities encouraging to request the central government to deal with land affected by mining (especially coal mines) or other industrial activities that called brownfield. The first known use of the term in the 1970s can be traced back to the steel industry in the United States, where the phrase "expansion of unused areas" has become popular for naming a particular type of special operation to modernize existing steel plants [1, 2].

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Planning for Brownfield areas is the most important urban planning target in developing countries and existing cities. The activation and reuse of brownfield areas will bring economic, social and environmental benefits directly and indirectly to surrounding communities and to property owners.

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The paper addressed the role of community participation including society, as shown in Figure-1, public-private sector and independent and local organization in activating brownfield projects through analysis several projects around the world.

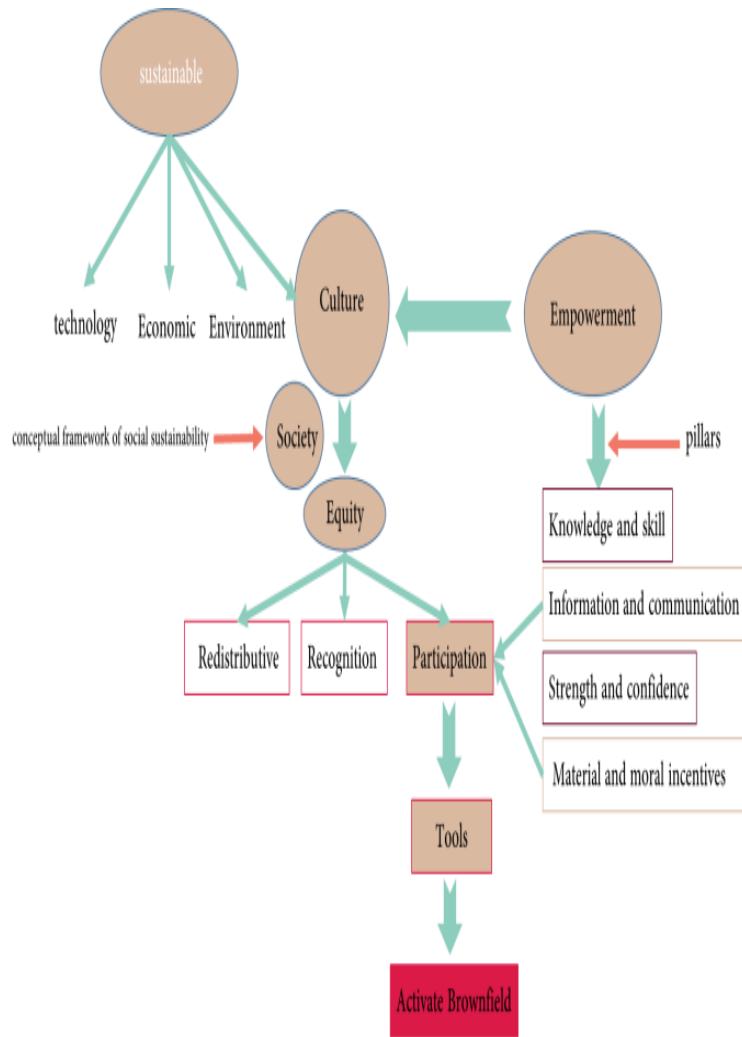


Figure 1-Paper concept

In 1961, Jane Jacobs has published *The Death and Life of Great American Cities* and wrote: “is generally identified as the basis of participatory planning that light the discussion about optimal methods of citizen inclusion and if such attempts should be a priority in the urban planning profession”. [4, 5]. The last 30 years have shown an increasing interest in the participatory planning, which attempted to combine the voices of all parties, public, private etc. into decision making.

Brownfield

There are different definitions for brownfield depend on countries and their policies, the most definition commonly used in the United States and Canada is the definition developed by the US

Environmental Protection Agency EPA¹ when it officially launched its Brownfield Agenda in 1995. The Agency identified unused areas as "abandoned, damaged or unused industrial or commercial facilities or facilities development is complex due to real or potential environmental contamination. while "brownfield" defines in UK regulations as unused and underused lands that are reviously developed" [6]

Sustainable Empowerment

Sustainable means development that provides the needs of the present without compromising the ability of future generations to meet their own needs". sustainable have four dimensions including technology, Economic, Environment, and culture, what we matter in this paper is culture (social sustainability). Sustainable Empowerment means empowering the community in the urban development system in the sense of providing the community with an opportunity to play an active role in all stages of the development process in the urban, administrative, social and economic aspects of decision making, planning, implementation, monitoring, and evaluation. [7, 8]. Empowerment helps the community to develop itself and can continue in development, therefore Empowerment is an entrance to Sustainability of communities.

Also defined as" a process of strengthening the society to exercise and control the processes of urban development and it deals with the application of the concept of intervention (when, how, with whom) thus can avoid urban deterioration" [9].

Sustainable empowerment has five techniques including leadership method, empowerment of individual method, team empowerment method, total quality management method and multi-dimension method in empowerment community participation appears in each technique in different ways.

community participation

Defined as the involvement of people in the community project to solve their own problem because they know what they need.

Community participation is taken place in a different way such as in need assessment, planning, mobilizing, implementation, monitoring, and evaluation.

The concept of participation should include a contribution, influencing, sharing or redistributing power, resources, benefits, knowledge, and skills to be gained through involvement in decision making, the most important characteristic that brings people together to act is a commonality of interest.

participants need to share information and identify additional information needs. A common base of information needed for effective problem solving is site visits, personal narratives, interviews with experts, and a review of technical reports are ways by which participants can become well informed about a problem. [10]

The study Community Involvement in Brownfield Redevelopment reviews the importance of community participation in redevelopment projects. The participation of the society takes different forms and gradually develops in response to the culture and the regulatory framework of local governments or municipalities, as well as the characteristics of the brownfield areas such as project site, the history of the site and its relationship and proximity to the various land, uses. However, successful community participation generally requires the implementation of four elements (1)

- Stakeholder Identification
- Process Framework
- Communication Mechanisms
- Review Periodic

Category of participator and their roles in community participation

Society Role

Community participation is one of the best ways to identify applicable strategies to overcome common barriers to the redevelopment of brownfield areas as well as to promote a sense of ownership in society's problems, knowing the community's needs can help local government shape the redevelopment and prevent disagreements about any development from occurring.

"Bring local residents to contribute when planning to redevelopment brownfield is very effective in

ways": (2)

- The integration of ideas among communities helps to promote a sense of ownership towards the city problems.
- Enlightening the locals with development issues that are facing their community, helps to encourage their participation with local government officials and private sector partners.

Many studies suggest that community-based or user-based initiatives have a greater chance of success because they are more aware of their cities and have a sense of what will and will not work. The principles of community-building activities are

- Identify the community's assets as well as its problems.
- Working in communities of reasonable size.
- Develop neighborhood strategies.
- Promote community values while building human and social capital.
- Developing creative partnerships with establishments in the city [11].

Community participation is one way to identify viable strategies to overcome barriers to the redevelopment of underutilized areas as well as to promote a sense of ownership in society's problems.

Local governmental and independent organizations Role

Local governments are the formal link between stakeholders and brownfields sites owners. local governments represent the vested benefits and diverse opinions of the entire community into a comprehensive redevelopment process, they have wide knowledge about physical sites as well as the historical and other cultural relationship between sites and the surrounding community In addition, local governments have knowledge about necessary protocols to engage related state and federal programs and policies. [12].

Each local government has different structures to redevelopment brownfields depend on their possibilities, policies and laws and community needs.

Public-Private Partnership (PPP)

The partnerships between public-private can provide the required technique to identify and apply the available budget to meet the requirements of brownfield redevelopment efforts in broadly or site-specific. These partnerships are strictly linked with the involvement of all community, state and federal programs. This involvement also plays a critical role in brownfield revitalization strategies [1]. PPP is generally defined as "joint investments and collaborative efforts between public sectors and private sectors". [10] , Private sector entities inclusive banks, engineering companies, private developers, while public sector consists of governments and all publicly controlled or publicly funded agencies, and other entities that deliver public programs, goods, or services. [7]

Reports show that there are many benefits of involving the private sector in the development, of them, include

- The cooperative agreements between the local and private sectors lead to the clean-up and redevelopment of Brownfield [12].
- Educate the local community as well as the private sector about the brownfields processes, may prompt developers to become involved in development projects". [2]

There are many complex development projects neither a private developer nor public institution can fund, design, develop, build and operate alone. Building real partnerships between the public and private sectors can greatly promote the ability to implement these projects. These partnerships should base on powerful leadership and reasonable sharing of costs, responsibilities and mutual economic return between the sectors.

Case study: High line

Is a transform project of derelict, high-rise railway line through large industrial buildings to a park in West Chelsea, New York City, which was developed and built in three phases between 2006 and 2014, opened in 2009 and considered one of the most successful development initiatives that took place horizontally rather than vertically.

The 1.45-mile main line starts at Gansevoort in the meat-packing area on the west side of Manhattan and continues northward to Chelsea and ends in a ring around Hudson Yards between 30 and 34th Street, as shown in Figure-2



Figure 2-High line path[13]

has become one of New York City's major tourist attractions, attracting more than six million visitors a year as a result of the development of commercial and residential properties and is the key driver for the revival of Chelsea's neighborhoods and a platform for viewing interesting architecture and designs. The railway was built in 1943 to protect goods from the western road sectors where trains pass through the third floor between the buildings to reach food and agricultural goods to the west side of Manhattan until 1980.

Parts of High Line were demolished in 1990 as shown in Figure- 3 after the owners of nearby buildings insisted on demolishing it completely and it was agreed to demolish it in 1999, until Robert Hammond and Joshua David met for the first time and established High Line was saved through the participation of citizens and city planners. The Friends of the High Line organized a marketing campaign with a competition that raised awareness towards redevelopment the project. Re-zoning, which occurred with the decision to maintain the railway, has helped to provide support from developers who have a stake in the land within the project, but is also the key to opening the development potential of the region, In 2005 the city adopted a proposal for re-zoning, which enabled the development of new residential and commercial buildings along the railway, which allowed for the intensification of buildings around the railroad as shown in Figure- 4

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Figure 3-modernize bukding / Source [14]

“Our lack of expertise was a key to the High Line’s success. It forced us to ask other people to help us. who rallied around us and guided us” (5)

Olympic Sculpture Park—Seattle, WA

In 1996, the Seattle Museum of Art decided to build an urban space to display sculptures in the city center. The chosen site was an 8.5-acre industrial area (oil industry and storage) that extends more than forty feet from the street level to the sea edge, the efficient railways and the main road have been restored as an effective environmental system. The pollution has been treated in addition to creating new sustainable forms, the nurturing of local farms and the development of part of the coast.



Figure 4-intensify building around high line/Authors.

The partnership between public-private sector in design and implementation the project is the reason for the success of the project by an operational grant from Microsoft CEO John Shirley with the help of Trust for Public Land organization. This collaboration is a continuous urban landscape in the form of a Z-type connecting railway tracks and roads, creating a new urban edge that reveals the past of the site as a fishing area and an oil depot that is easily used as an urban space and platform for future use as shown in Figure- 5. The project includes an exhibition pavilion, a public runway for many permanent and transitional artworks and three distinct gardens. The cooperation between the public and private sectors is the base of the project in order to re-activate it. It achieved a set of environmental objectives, including the development of an unexploited industrial zone, extensive use of local plantations and its use as a platform for the exhibition of works of art.

Test the theoretical framework indicators We will test the vocabulary that appeared in the theoretical framework on the selected examples to see which method of empowerment was adopted, and at which stage the process of participation. Table-1

From analysis projects above according to vocabulary appear that the role of community participation appears in assessment, planning and mobilizing while empowerment use leadership and team method through an independent organization which leads the development process.

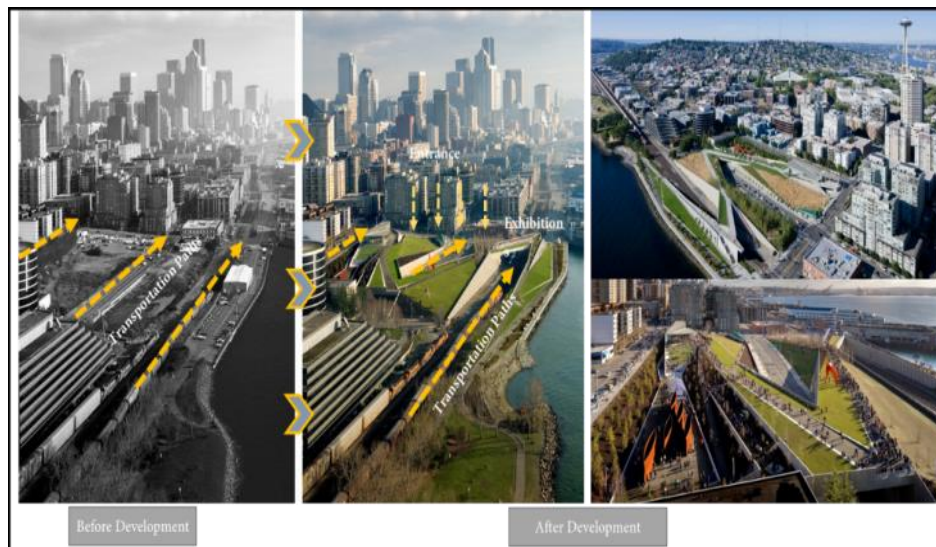


Figure 5-Olympic Sculpture Park After & Before Development/ Source: Authors based on [15]

Table 1-Application of theoretical framework indicators to selected projects/Authors

	Method	High line	Olympic Sculpture Park
Sustainable empowerment	leadership method	/	
	empowerment of individual method		
	team empowerment method	/	/
	total quality management method		
	a multi-dimension method in empowerment community participation appears in each technique in different ways		
Community participation	Assessment	/	
	planning	/	/
	Mobilizing	/	
	Implementation		/
	Monitoring and evaluation.		

Conclusion

Empowering the community to participate in discovering the problems and obstacles of major specialist development without compromising the resources of future generations are the main goals of sustainability. Community Participation is a vital tool to promote and achieve sustainable community and redevelopment cities because they know their needs and abilities more than anyone, from analysis projects show that the role of community participation appears in assessment, planning and mobilizing while empowerment use leadership and team method through an independent organization which leads the development process. Brownfield projects need huge efforts to redevelopment, neither the public sector nor the private sector can do it alone.

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