

# **Creating sustainable and liveable communities through spatial revitalization**

**Oluibukun Gbenga AJAYI (Namibia)**

**Key words:** Rural-urban linkages, urban renewal, spatial revitalization, rural development, sustainable and liveable communities

## **SUMMARY**

Spatial revitalization is the process of reimagining and reinvigorating urban and rural areas. It can contribute to economic opportunities, improved quality of life, environmental sustainability, and social integration. Spatial revitalization can attract businesses, create jobs, and enhance amenities and housing options. It can also help to create a more resilient and sustainable community. This paper explores the principles and practices of spatial revitalization. It emphasizes the significance of spatial revitalization in fostering community resilience and well-being, while also highlighting the implications and benefits of spatial revitalization both at the local and regional levels. Specific practices and strategies that have been employed for the enhancement and promotion of spatial revitalization are also examined. Furthermore, based on the lessons from some of the case studies herein presented, the paper highlights some of the challenges that are frequently encountered during the implementation of spatial revitalization initiatives and discusses how these challenges can be addressed while concluding by outlining some policy implications of spatial revitalization in creating sustainable and liveable communities.

# Creating sustainable and liveable communities through spatial revitalization

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## 1. Introduction

In an era of rapid urbanization and evolving societal needs, the concept of spatial revitalization has emerged as a compelling approach to transform urban and rural areas into sustainable and liveable communities. Spatial revitalization goes beyond mere physical redevelopment; it embraces a holistic perspective that integrates social, economic, and environmental dimensions to rejuvenate spaces and enhance the well-being of residents (Wikantiyoso and Suhartono, 2018). It refers to the process of rejuvenating and revitalizing urban and rural areas to enhance their liveability, economic vitality, and overall quality of life (Littke, 2015). It involves strategic interventions aimed at transforming underutilized or deteriorated spaces into vibrant, functional, and sustainable places (Kashchenko et al., 2020).

The concept of spatial revitalization recognizes that certain areas may face challenges such as physical decay, economic decline, social disconnection, or environmental degradation. These issues can result in blighted neighbourhoods, vacant properties, limited economic opportunities, and a diminished sense of community (Wikantiyoso and Suhartono, 2018). Spatial revitalization seeks to address these challenges by implementing a range of interventions, policies, and practices that focus on transforming the physical, economic, social, and environmental aspects of an area (Kashchenko et al., 2020). It often involves collaboration among various stakeholders, including government agencies, community organizations, businesses, and residents (Klaus and Chigbu, 2022).

The importance of spatial revitalization lies in its potential to address the complex challenges faced by urban and rural areas. Traditional development models often resulted in fragmented communities, sprawling suburbs, and environmental degradation. In contrast, spatial revitalization seeks to foster more compact, connected, and inclusive neighbourhoods that optimize land use, promote sustainable transportation, and preserve cultural heritage (Wikantiyoso and Suhartono, 2018; Handy and Maulana, 2020).

The goals of spatial revitalization can vary depending on the specific context, but common objectives include physical renewal, economic development, social and community enhancement, and environmental sustainability. Spatial revitalization is often context-specific, considering the unique characteristics, needs, and aspirations of a particular area. It requires careful planning, community engagement, and long-term commitment to ensure the successful transformation and sustainable development of urban and rural spaces.

At the core of spatial revitalization are several fundamental principles that guide its implementation. Regional planning provides a strategic framework for coordinated development across urban and rural areas, fostering balanced growth and minimizing

disparities (Wheeler, 2022; Purkarthofer et al., 2021). Compact and connected development promotes densification and mixed land uses, creating vibrant and walkable communities that reduce dependency on private vehicles and encourage sustainable transportation options (Daneshpour and Shakibamanesh, 2011; Bibri et al., 2020). The integration of mixed land uses, such as combining residential, commercial, and recreational spaces, contributes to the creation of dynamic and inclusive neighbourhoods (Surya et al., 2020; Lagendijk, 2001).

These principles lay the groundwork for a range of specific practices and strategies employed in spatial revitalization. Adaptive reuse of existing structures breathes new life into underutilized spaces (Sugden, 2017), while brownfield redevelopment transforms contaminated sites into productive and sustainable assets. Transit-oriented development leverages public transportation infrastructure to shape communities around transit hubs, reducing congestion and enhancing accessibility (Padeiro et al., 2019). Placemaking focuses on creating inviting public spaces that foster social interaction, community engagement, and a sense of place (Truong et al., 2022).

The implications and benefits of spatial revitalization extend beyond the individual project level. Spatial revitalization has the potential to generate economic opportunities, improve the quality of life for residents, enhance environmental sustainability, and foster social integration. Spatial revitalization can stimulate economic growth and competitiveness at both the local and regional levels by attracting businesses, creating jobs, and increasing property values (Ramlee et al., 2015). Furthermore, it promotes social equity and inclusivity by providing diverse housing options and enhancing access to amenities and services for all residents.

Spatial revitalization represents a transformative approach to address the challenges of urban and rural development. Communities can create sustainable, resilient, and liveable environments that enhance the well-being of their residents simply by embracing the principles and practices of spatial revitalization. This paper aims to provide insights into the principles, practices, implications, and benefits of spatial revitalization, encouraging further research, policy development, and practical implementation in the pursuit of more sustainable and inclusive communities. The rest of the paper is structured as follows; first, a brief overview of the importance and relevance of spatial revitalization in the creation of liveable and sustainable communities is provided in section 2. This is followed by an insight into the vital principles guiding spatial revitalization efforts (section 3) while the contributions of these guiding principles to the creation of liveable communities is discussed in section 3.1. The practices and strategies that have been employed for the enhancement and promotion of spatial revitalization are highlighted in Section 4 while the implications and benefits of spatial revitalization both at the local and regional levels are discussed in section 5. Section 6 discusses the potential benefits and opportunities of spatial revitalization, while some of the challenges and barriers that may arise during the implementation of spatial revitalization initiatives together with how they can be addressed are documented in section 7. Section 8 outlines the main conclusions and policy implications of spatial revitalization in creating sustainable and liveable communities.

## **2. Brief overview of the importance and relevance of spatial revitalization**

Spatial revitalization plays a crucial role in addressing the challenges faced by urban and rural areas, and its importance and relevance can be observed in several key aspects.

Firstly, spatial revitalization contributes to economic growth and competitiveness. It attracts businesses, stimulates investment, and creates employment opportunities by transforming underutilized or blighted areas into vibrant and productive spaces. This leads to increased economic competitiveness and prosperity, as revitalized areas become attractive destinations for businesses and investors.

Secondly, spatial revitalization promotes sustainable development. It optimizes land use by encouraging compact and connected development, minimizing sprawl, and preserving green spaces. Revitalization projects often incorporate sustainable design principles, such as energy-efficient buildings, green infrastructure, and renewable energy systems (Shi and Yang, 2022). It supports long-term sustainability and the well-being of both present and future generations by conserving resources and reducing environmental impacts.

Furthermore, spatial revitalization has a significant impact on social cohesion and community well-being (Jennings and Bankole, 2019). It fosters a sense of pride, belonging, and identity among residents by creating attractive and inclusive environments. Community engagement is often a key component of revitalization projects, encouraging collaboration and enhancing social connections (Chan and Yung, 2004). These efforts strengthen community bonds, improve social interactions, and contribute to overall well-being.

Improved quality of life is another notable outcome of spatial revitalization (Lloyd and Auld, 2003). Revitalized areas provide access to improved amenities, public spaces, recreational facilities, and cultural opportunities. Prioritizing walkability, access to services, and a mix of land uses enhances residents' quality of life by enabling them to lead healthier, more convenient, and fulfilling lives (Zhou et al., 2020). Revitalization creates environments that support physical activity, social interaction, and cultural engagement, all of which contribute to a higher quality of life for individuals and communities.

Environmental remediation is a critical aspect of spatial revitalization as it addresses environmental degradation and contamination in previously underutilized or contaminated areas thereby contributing to the restoration of ecosystems and safeguards human health (Bleicher and Gross, 2010). The rehabilitation of brownfield sites and the repurposing of industrial areas not only revitalize the physical environment but also promote environmental sustainability to the benefit of both the natural surroundings and the well-being of residents (De Sousa, 2003; Hammond et al., 2021).

Preservation of cultural heritage is often intertwined with spatial revitalization (Couch et al., 2011, Penica et al., 2015). Revitalization projects contribute to the preservation of local identity, traditions, and history by preserving and showcasing cultural heritage. Historic preservation and adaptive reuse of buildings not only retain the architectural and cultural

value but also serve as cultural hubs, attracting tourism, promoting cultural exchange, and enhancing the overall cultural vitality of a region (Ijla and Broström, 2015).

Lastly, spatial revitalization increases resilience in communities (Seyed-Mohammad and Doratli, 2022). Revitalized areas, through the integration of diverse land uses, support for local economies, and promotion of social cohesion, become more resilient to various challenges. Whether facing economic shocks, natural disasters, or social disruptions, these revitalized communities are better equipped to adapt, withstand, and recover from adverse events, enhancing their overall resilience.

### 3. Fundamental principles guiding spatial revitalization efforts

Spatial revitalization efforts are guided by several fundamental principles that aim to create sustainable, vibrant, and integrated communities (see Figure 1). While some of them were briefly highlighted in section 1, some key principles that guiding spatial revitalization as highlighted in more details as follows:



Figure 1: Principles guiding the implementation of spatial revitalization.

**Regional Planning:** Regional planning is a fundamental principle that recognizes the interconnectedness of urban and rural areas within a broader region. It involves collaborative and coordinated efforts among multiple jurisdictions, stakeholders, and communities to develop a shared vision and strategic plans for integrated development. Regional planning ensures that spatial revitalization efforts transcend local boundaries, address regional challenges, and capitalize on regional opportunities.

**Compact and Connected Development:** This principle emphasizes efficient land use and the reduction of urban sprawl. It involves prioritizing the development and redevelopment of

existing urban areas rather than expanding outward. Compact development focuses on creating higher-density, mixed-use neighbourhoods that are walkable, bike-friendly, and well-served by public transportation (Yassin, 2019). Connected development promotes the integration of transportation networks, making it easier to travel between urban and rural areas.

**Integration of Mixed Land Uses:** The integration of mixed land uses is a principle that promotes diversity and flexibility in land use planning. It involves strategically combining residential, commercial, industrial, institutional, and recreational uses within the same area (Song and Knaap, 2004). The integration of different land uses helps in creating vibrant and dynamic communities that offer a range of services, amenities, and opportunities within walking distance neighbourhoods (Surya et al., 2020; Lagendijk, 2001). This principle reduces dependency on private vehicles, supports local businesses, and fosters a sense of place and social interaction.

**Preservation of Cultural Heritage:** This is an important principle that recognizes the value of historical and cultural assets in spatial revitalization (Tweed and Sutherland, 2007). It involves the protection, restoration, and adaptive reuse of historic buildings, sites, and landscapes. Integrating cultural heritage into revitalization efforts preserves local identity, fosters a sense of continuity, and enhances the unique character of a place (Ho et al., 2012). This principle promotes cultural tourism, stimulates economic activity, and strengthens community pride.

**Environmental Sustainability:** Environmental sustainability is a guiding principle that ensures spatial revitalization is carried out in an environmentally responsible manner. It involves incorporating sustainable design, green infrastructure, and energy-efficient practices into revitalization projects. This principle aims to minimize the environmental footprint, enhance resource efficiency, mitigate climate change impacts, and protect natural habitats. Environmental sustainability promotes healthier and more resilient communities.

**Social Equity and Inclusivity:** This principle prioritizes the well-being and inclusion of all community members in spatial revitalization efforts. It involves engaging diverse stakeholders, considering the needs of marginalized or disadvantaged groups, and ensuring equitable access to housing, services, and opportunities (Krieger and Higgins, 2002). Spatial revitalization should aim to bridge social divides, reduce inequalities, and create inclusive spaces that meet the diverse needs of residents (Avni and Fischler, 2020).

#### **4. Practices and strategies that have been employed to enhance and promote spatial revitalization**

Several practices and strategies have been employed to enhance and promote spatial revitalization. Some of the examples of these strategies and practices are shown in Figure 2.

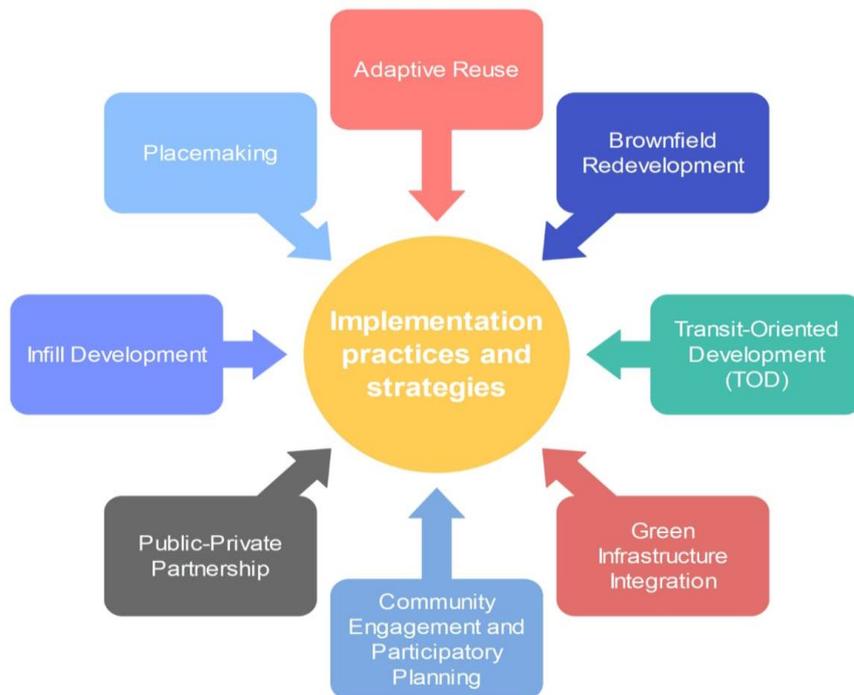


Figure 2: Strategies deployed for the promotion of spatial revitalization.

These examples demonstrate some of the specific approaches that have been successful in revitalizing communities, and they are discussed below in more details:

One approach is adaptive reuse, which involves repurposing existing buildings or structures for new uses rather than demolishing them. This practice preserves the historic or architectural value of a site while giving it a new lease on life (Ho et al., 2012). Examples of adaptive reuse include converting old factories into mixed-use spaces, transforming warehouses into art galleries, or repurposing schools as community centers. Adaptive reuse promotes sustainable development, preserves cultural heritage, and can be more cost-effective than new construction (Zheng et al., 2014).

Another practice is brownfield redevelopment, which focuses on revitalizing contaminated or underutilized industrial sites (Hammond et al., 2021). Brownfield redevelopment helps revitalize blighted areas, creates new economic opportunities, and reduces pressure on undeveloped land by remediating environmental contamination and transforming these sites into productive and safe spaces (Zheng et al., 2014). Collaboration among government agencies, private developers, and environmental experts is crucial to ensure proper cleanup and redevelopment.

Transit-oriented development (TOD) is a strategy that involves designing and planning development around public transportation hubs, such as train or subway stations (Padeiro et al., 2019). TOD promotes higher-density, mixed-use development within walking distance of transit stations, thereby reducing dependency on private vehicles and encouraging the use of public transportation. This practice enhances mobility options, reduces congestion, and creates vibrant, pedestrian-friendly neighbourhoods.

Spatial revitalization also incorporates the integration of green infrastructure, which refers to the strategic use of natural elements such as parks, green spaces, and water features to enhance the urban environment which improves air and water quality, mitigates the urban heat island effect, provides recreational opportunities, and enhances the overall aesthetic appeal of an area. Examples of green infrastructure integration include creating urban parks, installing green roofs, establishing rain gardens, and developing greenway networks.

Effective spatial revitalization involves meaningful community engagement and participatory planning processes. Engaging residents, stakeholders, and community organizations from the early stages of planning ensures that revitalization efforts align with community needs, aspirations, and values. This practice promotes transparency, inclusivity, and collaboration, leading to more successful and community-supported revitalization projects. Public-private partnerships (PPPs) bring together government entities, private developers, and community stakeholders to collaborate on revitalization projects. PPPs leverage the strengths and resources of both sectors to implement revitalization initiatives effectively. Through joint funding, shared expertise, and coordinated efforts, PPPs facilitate the implementation of complex projects and contribute to their long-term success.

Infill development is another approach that involves utilizing vacant or underutilized parcels of land within existing developed areas. Redeveloping vacant lots or repurposing underused spaces helps combat urban sprawl, promotes compact development, and optimizes the use of existing infrastructure. Infill development can revitalize neighbourhoods, increase housing options, and create more walkable and diverse communities.

Finally, Placemaking is also another strategy that is employed for the enhancement of spatial revitalization. It focuses on creating vibrant and engaging public spaces that reflect the unique character and needs of a community. This practice involves involving residents in the design and activation of public spaces, making them more inviting and functional (Truong et al., 2022). Examples of placemaking initiatives include community gardens, public art installations, pop-up markets, or pedestrian-friendly streetscapes. Placemaking enhances social interaction, strengthens community identity, and attracts visitors.

## **5. Implications and benefits of spatial revitalization both at the local and regional levels**

Spatial revitalization has significant implications and benefits at both the local and regional levels. Some of the key implications and benefits of spatial revitalization are presented in Figure 3 and further discussed herewith.

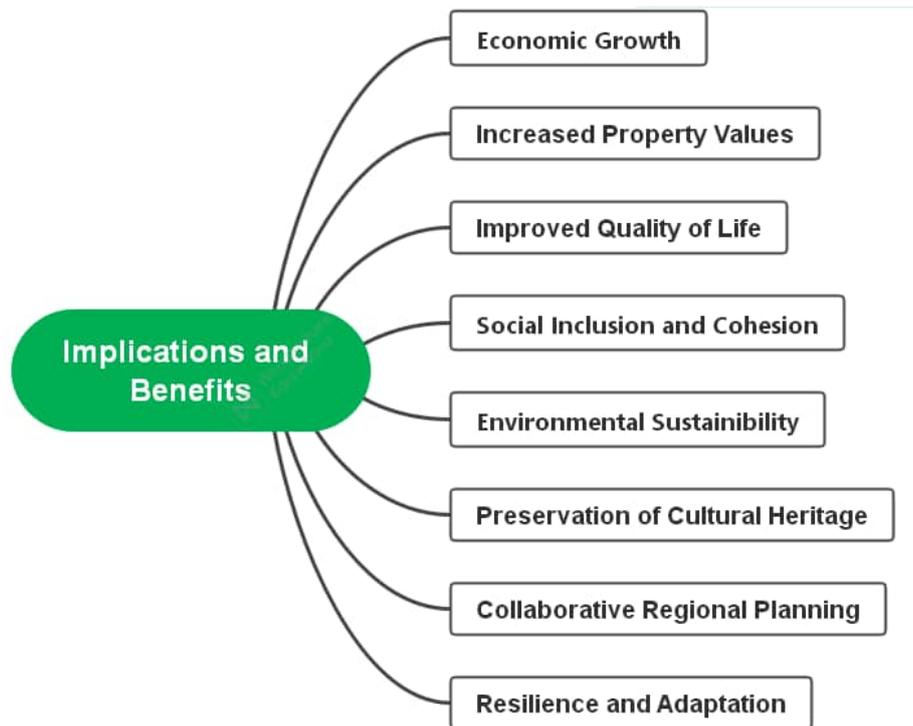


Figure 3: Implications and benefits of spatial revitalization

**Economic Growth:** Spatial revitalization can stimulate economic growth and prosperity. At the local level, revitalized areas attract businesses, spur entrepreneurship, and create employment opportunities. This leads to increased tax revenues, improved local economies, and enhanced purchasing power for residents. At the regional level, spatial revitalization contributes to overall economic competitiveness by fostering innovation, attracting investment, and creating synergies between urban and rural areas.

**Increased Property Values:** Revitalization efforts often lead to increased property values in the revitalized areas. As the physical and social conditions improve, property prices tend to rise, benefiting homeowners and property investors. Higher property values contribute to increased tax revenues for local governments and can attract further private investment in the area.

**Improved Quality of Life:** Spatial revitalization enhances the quality of life for residents. At the local level, revitalized neighbourhoods offer improved amenities, public spaces, recreational facilities, and cultural opportunities. This creates a more vibrant and attractive living environment, promoting physical and mental well-being. At the regional level, spatial revitalization can enhance the overall liveability of the entire region, offering diverse options for employment, housing, education, and recreation.

**Social Inclusion and Cohesion:** Spatial revitalization can address social disparities and promote inclusivity. Revitalization efforts often focus on creating affordable housing options, improving access to services, and enhancing social infrastructure. This helps reduce inequalities and promotes social cohesion by bringing diverse populations together, fostering a sense of community, and facilitating social interaction.

**Environmental Sustainability:** Revitalization initiatives can contribute to environmental sustainability. By promoting compact and connected development, integrating green infrastructure, and encouraging sustainable design practices, spatial revitalization reduces energy consumption, carbon emissions, and waste generation. It also preserves natural areas and supports biodiversity. These environmentally sustainable practices have positive impacts at both the local and regional levels, contributing to a healthier and more resilient environment.

**Preservation of Cultural Heritage:** Spatial revitalization often involves the preservation and integration of cultural heritage assets. This preserves local identity, traditions, and history, contributing to cultural vitality. At the local level, revitalization projects showcase the unique character of a place, attracting visitors, supporting creative industries, and stimulating cultural tourism. At the regional level, spatial revitalization can enhance the collective cultural heritage and promote regional identity.

**Collaborative Regional Planning:** Spatial revitalization requires collaborative regional planning and cooperation between multiple jurisdictions and stakeholders. This leads to better coordination of resources, knowledge sharing, and the alignment of development goals. It promotes integrated approaches to infrastructure, transportation, and land use planning, ensuring sustainable and cohesive regional development.

**Resilience and Adaptation:** Revitalized communities are often more resilient and better equipped to face challenges. By integrating diverse land uses, supporting local economies, and enhancing social networks, spatial revitalization builds community resilience. This enables communities to adapt to economic shifts, natural disasters, and other disruptions, ensuring their long-term sustainability and well-being.

## **6. Potential economic opportunities, improved quality of life, environmental sustainability, and social integration that can be achieved through these practices.**

The practices of spatial revitalization have far-reaching effects across various domains, including economic opportunities, improved quality of life, environmental sustainability, and social integration as presented in Figure 4. These interconnected aspects work together to create sustainable and liveable communities.

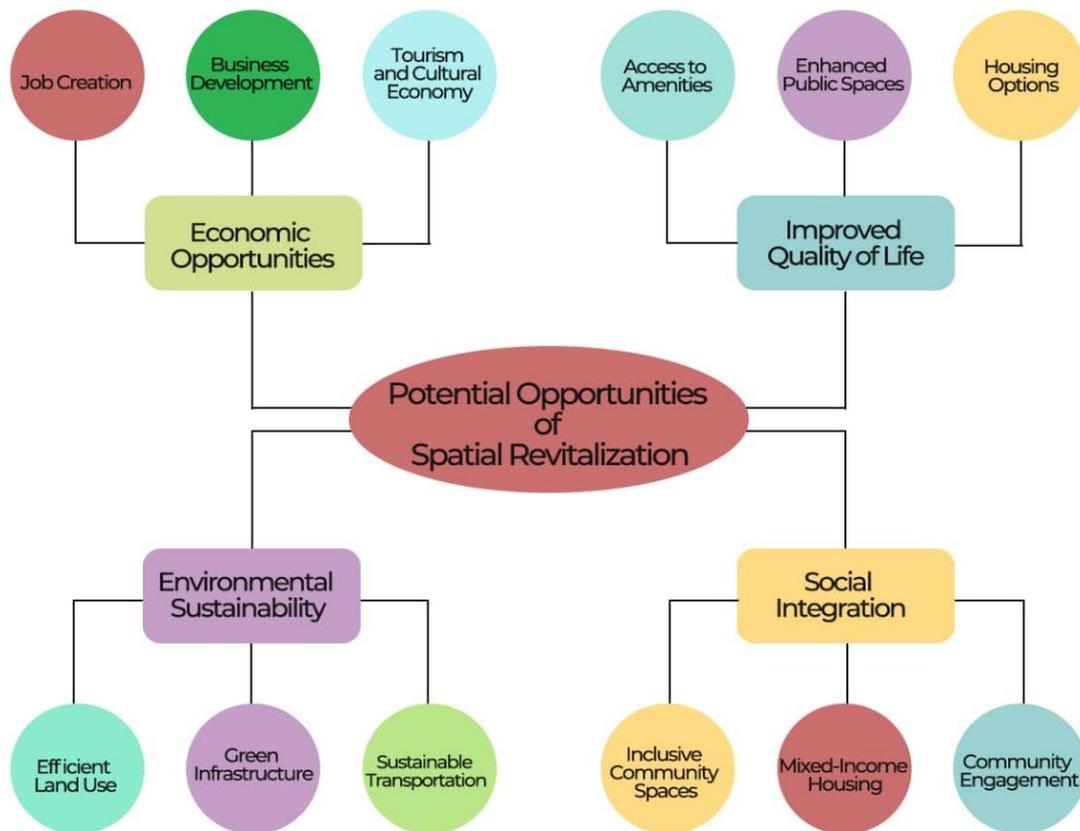


Figure 4: Potential effects and impacts of spatial revitalization

Firstly, spatial revitalization initiatives generate significant economic opportunities. Job creation is a key outcome, as these projects require labour for construction, renovation, and ongoing operations. Industries such as construction, retail, hospitality, and services benefit from the revitalization efforts, contributing to local economic growth. Additionally, the integration of mixed land uses and the creation of vibrant neighbourhoods attract businesses and entrepreneurs, fostering commercial activity and providing a conducive environment for start-ups and creative industries. Cultural tourism is another aspect that revitalization can stimulate, as preserving and promoting cultural heritage assets can attract visitors, generate economic activity, and contribute to the growth of the tourism and cultural economy.

Furthermore, spatial revitalization greatly improves the quality of life for residents. Access to amenities plays a crucial role, as the integration of mixed land uses ensures convenient access to essential services and facilities within close proximity. This reduces travel time, enhances convenience, and improves the overall quality of life. Additionally, the creation and enhancement of public spaces are key components of revitalization efforts. These public spaces, such as parks, plazas, and pedestrian-friendly streetscapes, offer opportunities for recreation, social interaction, and community engagement. They serve as gathering places that foster a sense of well-being, belonging, and community pride. Alongside these factors, revitalization projects often include the development of affordable housing options, addressing housing affordability challenges and providing diverse housing choices for individuals and families, further improving the quality of life.

Moreover, spatial revitalization contributes to environmental sustainability. By adopting practices such as compact and connected development and infill development, communities can optimize land use and minimize urban sprawl. This approach reduces the pressure on Greenfield sites, preserving natural habitats and agricultural land. Furthermore, revitalization projects often incorporate green infrastructure elements such as parks, green spaces, urban gardens, and water management systems. These features enhance biodiversity, mitigate the urban heat island effect, improve air and water quality, and contribute to overall environmental sustainability. Sustainable transportation options are also prioritized in revitalization efforts, promoting alternatives to private vehicles such as public transit, walking, and cycling. This reduces carbon emissions, improves air quality, and encourages healthier and more sustainable modes of transportation.

Lastly, spatial revitalization fosters social integration and cohesion within communities. The creation of inclusive community spaces is a fundamental aspect, aiming to provide accessible and welcoming public spaces that cater to the needs of diverse populations. These spaces serve as gathering points for social interaction, promoting a sense of belonging and community engagement. Additionally, the incorporation of mixed-income housing within revitalization projects plays a vital role in social integration. Bringing together residents from different socio-economic backgrounds makes these communities more diverse and inclusive, fosters understanding and breaks down social barriers. Community engagement processes are another integral part of spatial revitalization, ensuring that residents have a voice in shaping the future of their neighbourhoods. This inclusive approach fosters social cohesion, strengthens community bonds, and promotes shared ownership and pride in the revitalization process.

## **7. Case Studies showing practical examples of spatial revitalization**

### **Case 1: Seonyudo Park, Seoul, South Korea**

**Covering** a land mass of **about 11 hectares**, **Seonyudo Park** is a popular park and open space located on an Island on the Hangang River that was formerly used as an industrial water treatment plant in South Korea. The small Island, located west of Yeouido, was opened in 2009 after city officials realized that the island could be better used as an urban park instead of an idle industrial plant.

Seonyudo was originally a scenic island. In 1925, much of the Island was destroyed by floods. Due to this natural hazardous occurrence, in 1945, the treatment plant closed and became an eyesore.

The government of Seoul then decided that it would be best to return the land to the public and convert the plant into an urban park. This decision resulted to a redesign of the plant to have a tourism-attracting environment. Architect Sung-Yong Joh (selected through a design competition in 2000) designed the park in such a way that highlighted the past industrial destruction of the island. He hoped that future generations that visited the area would better

understand and realize the dangers of an industrial society on nature. He found a way to beautifully mix nature back into the island while not forgetting its brutal concrete past. The unique geography of the land and the original plant facilities played an important role in the creation of the park that now features an aquatic botanical garden, a museum, and a pavilion (Jetzt, 2018).

The spatial revitalization of the used-to-be industrial treatment plant is an indication of a breaking down of boundaries between the industrial and the cultured, the artificial and natural, the past and present (Jun and Dai, 2018).

Though, the park has been spotlighted, since 2002, for its success for not only engaging the public to the place, serving as a source of generating revenue through tourism, also providing new perception to the city's development, it was initially criticized as it stops been a source of supply of tap water (initial purpose of the spatial location from 1978-2000).



(a)



(b)



(c)

Plate I: (a): Seonyudo Island (1978), (b): Seonyudo purification plant, (c)Citizens/Tourists at Seonyudo Park (2010)

### **Case 2: A’Beckett Urban Square, Melbourne, Australia (Under-utilized facility)**

A’Beckett Urban Square is a transformed image of an under-utilized and derelict car park behind the new Swanston Academic Building, in RMIT University, Melbourne, Australia. For years, the University used the 2800 square meter space as a car park surrounded by its academic buildings. In 2012, the city Mayor took a stand against inactive property owners and sparked a wave of urban interventions, including the RMIT A’Beckett Urban Square.

The former car park was turned into ‘pop-up’ park in 2013 and completed a year later. An under-utilized car park turned to an instant magnet for students and young urban dwellers.

With a design cost of about 1.2 million USD, the space was designed into a space designated for active and casual engagement, incorporating sports courts, landscaping, BBQ facilities, Wi-Fi, pop-up plants in tubs, places to sit and relax.

Before this revitalization, there is almost nowhere in the city to play casual sport, hence, the University had opened the site as a temporary place for casual recreation and engagement. This invention brought an increased popularity and economic activities to the University. Also, A’Beckett Urban Square adds a new venue to connect the University with the city and its people.



(a)



(b)

Plate II: (a): A’Beckett derelict car park in 2012 (b): A’Beckett Urban Square in 2023

### **Case 3: Ojoo Bus Terminal, Ibadan, Nigeria – Transformed crime hotspot.**

Increment in rate of crime attacks on and around transport facilities globally has been for decades and evidence of such abounds in Nigeria (Ajayi and Ajayi, 2014). Ojoo, a town in Ibadan the capital city of Oyo State in Nigeria, is mainly occupied by residential, commercial, institutional, and religious land use. Due to its crucial location and the socio-economic purposes it serves, the area is expected to be well planned, but regrettably, the area was an exhibition of improper urban land use, disorganized spatial arrangement and poor urban scenery (Olubi, 2019) before it was revitalized.

The construction of Ojoo Bus Terminal was approved in 2020 together with three others within Ibadan. The terminal (also serving the purpose of transport interchanges) was not only envisioned to address transportation-related problems but to also minimize the security issues that has been undermining socio-economic growth in Ojoo and Ibadan city at large. The development of such infrastructure, indeed, will minimize and regulate clustering that often result to environmental disturbance and all forms of social vices.

The terminal has comforting facilities available for use by passengers and drivers such as relaxation floor, loading bay, restaurant, bar, water treatment plant, toilet and clinic.

Apart from the political sentiments poised observable in most government-induced developments, always worsen by the cumbersome process of getting approval for such projects from legislative arm of state government, the transformative developments brought about displacement of businesses and other socio-economic activities that always happen in the location, especially some sub-interstate motor parks. These are the major challenges experienced and brought by the Ojoo bus terminal. On the flip side, beyond the beautification of the immediate environment, the bus terminal now enhances economic activities, contributing to the increasing internally generated revenue of the city, guaranteed safety of life and properties of commuters/passengers while also reducing the unemployment index of the area (Rotimi, 2022).



(a)



(b)

Plate III (a): Ojoo Bus Terminal before revitalization (Olubi, 2019), (b): Ojo Bus Terminal in the revitalized state (Rotimi, 2022).

#### **Case 4: 11th Street Bridge, Washington DC, United States of America**

The 11th Street Bridge at conception was designed to convey Interstate 695 across the river to its southern terminus at Interstate 295 and DC 295. The bridges also connect the neighbourhood of Anacostia with the rest of the city of Washington. The major (regional) plans expected that the bridge will extend across the river and join the Anacostia Freeway. Those plans were abandoned (District of Columbia, Department of Transportation, 2005). This resulted to increase in traffic on the local neighbourhood streets including the Martin Luther King, Jr. Avenue, Good Hope Road, Minnesota Avenue among others.

In March 2000, in response to District of Columbia's plans to revitalize the Anacostia riverfront, Federal and District agencies came together to transform the Anacostia River into a revitalized urban waterfront, hence the need to improve the condition of the bridges. A revitalization project centered on the 11th Street Bridges was aimed at reducing congestion and improving the mobility of traffic across Anacostia River, increase safety of vehicular, pedestrian and bicycle traffic, replace deficient infrastructure and roadway design and to provide an alternative evacuation route and routes for security movements in and out of the nation's capital.

However, an unused span of the bridge was noticed, inspired by New York's Highline, the D.C Mayor's Office of Planning proposed retaining the structures and transforming them into an elevated park, hence the birth of 11th Street Bridge Park.



(a)



(b)

Plate IV (a): 11th Street Bridges (1965), (b): 11th Street Bridge Park

The project has already won approval from the National Capital Planning Commission and U.S. Commission on Fine Arts, and has secured about \$81.5 million of the \$92 million total project cost even before 2016, however, developmental constructions at the park has been

greatly hampered: D.C. environmental regulators said they could not issue permits because of the elevated park’s impact on the Anacostia River. If fully approved, spans of the park will permanently shade a section of the river, altering the ecosystem and slowing the growth of underwater vegetation (Jacob, 2022).

However, when fully operational, there will be notable social and economic growth in its vicinity. The park will link some of the District’s poorest neighbourhoods east of the river, including Historic Anacostia and Fairlawn, with some of its wealthiest, including Navy Yard and Capitol Hill. The elevated park — the size of three football fields aligned end-to-end, will include a cafe, outdoor performance venues, playgrounds, an outdoor education center, and kayak and canoe launches.

### **8. Addressing the challenges and barriers that may arise during the implementation of spatial revitalization initiatives**

Implementing spatial revitalization initiatives are poised to face various challenges and barriers as has been documented in some of the cases studied in this explorative paper. Some of these challenges are highlighted in Figure 5 and discussed as follows:

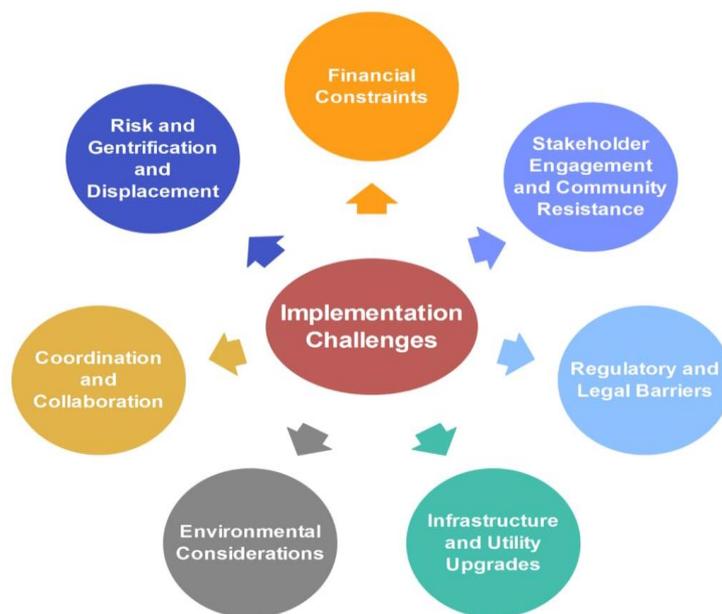


Figure 5: Challenges common to the implementation of spatial revitalization initiatives

**Financial Constraints:** Spatial revitalization projects often require substantial financial resources for land acquisition, infrastructure development, building renovations, and community programs. Limited funding and budgetary constraints can impede progress. To address this challenge, stakeholders can explore alternative funding sources such as public-private partnerships, grants, tax incentives, and crowdfunding. Engaging with financial institutions and seeking investment from private developers can also help secure the necessary funding.

**Stakeholder Engagement and Community Resistance:** Revitalization projects may face resistance from community members who fear displacement, changes to their neighbourhood's character, or loss of cultural heritage. Inadequate stakeholder engagement and a lack of community involvement can hinder project acceptance. To address this, it is crucial to initiate early and continuous engagement with community members, listen to their concerns, and incorporate their feedback into the planning process. Transparent communication, public forums, workshops, and regular updates can help build trust and foster collaboration.

**Regulatory and Legal Barriers:** Complex regulatory frameworks, zoning restrictions, and permitting processes can pose challenges to spatial revitalization. Navigating through bureaucratic procedures and obtaining necessary approvals may delay project implementation. To overcome these barriers, it is important to establish strong partnerships with local government agencies, involve them early in the planning process, and work together to streamline regulatory procedures. Advocacy for policy changes and zoning updates that support revitalization goals can also be pursued.

**Infrastructure and Utility Upgrades:** Revitalization projects often require upgrading or expanding infrastructure systems, including transportation, water, sewage, and utilities. The lack of adequate infrastructure and the high cost of upgrades can be a significant barrier. Collaboration between public and private entities is essential to plan and finance infrastructure improvements. Securing government funding, exploring public-private partnerships, and leveraging available grants or infrastructure development programs can help overcome this challenge.

**Risk of Gentrification and Displacement:** Spatial revitalization can unintentionally lead to gentrification, where rising property values and rents displace low-income residents and businesses. Displacement disrupts social cohesion and may result in the loss of neighbourhood diversity (Rahbarianyazd, 2017). To mitigate this risk, revitalization plans should include strategies for affordable housing preservation or creation, rent control measures, mixed-income housing developments, and support for local businesses. Implementing policies that protect vulnerable populations and ensuring inclusive zoning regulations can help address these challenges.

**Environmental Considerations:** Revitalization initiatives should prioritize environmental sustainability and resilience. However, addressing environmental challenges, such as contamination remediation, flood risk management, or preserving green spaces, can be complex and costly. Engaging environmental experts and conducting thorough assessments at the project outset can help identify and address potential environmental issues. Collaborating with environmental organizations, using green infrastructure practices, and seeking funding from environmental grant programs can support environmentally sustainable revitalization efforts.

**Coordination and Collaboration:** Spatial revitalization often involves multiple stakeholders, including government agencies, private developers, community organizations, and residents.

Coordinating and aligning the interests and actions of diverse stakeholders can be a challenge. Establishing clear governance structures, fostering collaboration through partnerships, and creating platforms for regular communication and coordination among stakeholders can help address this challenge.

## **9. Conclusions and future outlooks**

This paper has explored the principles, practices, implications, and benefits of spatial revitalization through urban-rural land linkages. Several key contributions that shed light on the importance of this approach in creating more sustainable and resilient communities have been highlighted.

Firstly, the fundamental principles that guide spatial revitalization efforts, including regional planning, compact and connected development, and the integration of mixed land uses were outlined. These principles provide a framework for fostering sustainable growth, efficient land use, and vibrant communities. Furthermore, specific practices and strategies employed in spatial revitalization, such as adaptive reuse, brownfield redevelopment, transit-oriented development, and place making were also discussed. These practices have demonstrated their effectiveness in revitalizing underutilized spaces, preserving cultural heritage, and enhancing the physical and social fabric of communities. Importantly, this paper also underscored the implications and benefits of spatial revitalization at both the local and regional levels. From economic growth and increased property values to improved quality of life and environmental sustainability, spatial revitalization offers a range of advantages. It fosters social inclusion, preserves cultural heritage, facilitates collaborative regional planning, and strengthens community resilience. Finally, the significance of spatial revitalization through urban-rural land linkages as a pathway towards creating more sustainable and resilient communities was reiterated.

As we move forward, it is essential to continue advancing research, policy development, and practical implementation of spatial revitalization initiatives through which communities that are economically vibrant, socially inclusive, environmentally sustainable, and resilient to the challenges of the 21st century can be built.

## **REFERENCES**

1. Ajayi D. D and Ajayi A. (2014). Trend Analysis of Crime Incidences and Crime Vulnerability Differentials on Urban Transport Facilities in Ibadan. *Journal of Intelligent Transportation and Urban Planning*, 2(2), pp. 45-57.
2. Avni, N., & Fischler, R. (2020). Social and Environmental Justice in Waterfront Redevelopment: The Anacostia River, Washington, D.C. *Urban Affairs Review*, 56(6), 1779–1810. <https://doi.org/10.1177/1078087419835968>
3. Bibri, S. E, Krogstie, J. Kärrholm, M. (2020). Compact city planning and development: Emerging practices and strategies for achieving the goals of sustainability. *Developments in the Built Environment*, Volume 4, <https://doi.org/10.1016/j.dibe.2020.100021>.

4. Bleicher, A & Gross, M (2010) Sustainability assessment and the revitalization of contaminated sites: operationalizing sustainable development for local problems, *International Journal of Sustainable Development & World Ecology*, 17:1, 57-66, DOI: [10.1080/13504500903488263](https://doi.org/10.1080/13504500903488263)
5. Chan, E.H.W. and Yung, E.H.K. (2004). Is the development control legal framework conducive to a sustainable dense urban development in Hong Kong? *Habitat International*, 28 (3) (2004), pp. 409-426, [10.1016/S0197-3975\(03\)00040-7](https://doi.org/10.1016/S0197-3975(03)00040-7)
6. Couch, C., Sykes, O., Boerstinghaus, W. (2011). Thirty years of urban regeneration in Britain, Germany and France: the importance of context and path dependency. *Progress in Planning*, 75. 1-52, [10.1016/j.progress.2010.12.001](https://doi.org/10.1016/j.progress.2010.12.001)
7. Daneshpour, A and Shakibamanesh, A. (2011). Compact city; dose it create an obligatory context for urban sustainability? *International Journal of Architectural Engineering & Urban Planning*, Vol. 21, No. 2.
8. De Sousa, C. A. (2003). Turning brownfields into green space in the City of Toronto. *Landscape and Urban Planning*. 62(4), 3, [https://doi.org/10.1016/S0169-2046\(02\)00149-4](https://doi.org/10.1016/S0169-2046(02)00149-4).
9. Eva Purkarthofer, Alois Humer, Raine Mäntysalo. (2021) Regional planning: an arena of interests, institutions and relations. *Regional Studies* 55:5, pages 773-777.
10. Hammond, E. B., Frederic Coulon, Stephen H. Hallett, Russell Thomas, Drew Hardy, Andrew Kingdon, Darren J. Beriro, (2021). A critical review of decision support systems for brownfield redevelopment. *Science of The Total Environment*, 785, <https://doi.org/10.1016/j.scitotenv.2021.147132>.
11. Handy, M.R.N, and Maulana, I. (2020). Revitalization of Green Open Space to Fulfill the Needs of Urban Communities. *Advances in Social Science, Education and Humanities Research*, Volume 525
12. Ho, D.C.W., Yau, Y., Poon, S.W., Liusman, E. (2012). Achieving sustainable urban renewal in Hong Kong: strategy for dilapidation assessment of high rises. *Journal of Urban Planning and Development-ASCE*, 138 (2), 153-165, [10.1061/\(ASCE\)UP.1943-5444.0000104](https://doi.org/10.1061/(ASCE)UP.1943-5444.0000104)
13. Ijla, A. and Broström, T. (2015). The Sustainable Viability of Adaptive Reuse of Historic Buildings: the experiences of Two World Heritage Old Cities; Bethlehem in Palestine and Visby in Sweden. *International Invention Journal of Arts and Social Sciences*, 2(4), 52-66
14. Jacob F. (2022). Emergency Bill Will Allow 11th Street Bridge Part to move ahead. Diane Rehm Book Club online publication, published on 15 November, 2022. Accessed on: 26 May, 2023. <https://dcist.com/story/22/11/15/11th-st-bridge-park-approval/>
15. Jennings, V.; Bamkole, O. (2019). The Relationship between Social Cohesion and Urban Green Space: An Avenue for Health Promotion. *Int. J. Environ. Res. Public Health*, 16, 452. <https://doi.org/10.3390/ijerph16030452>
16. Jetzt T. (2019). Seonyudo Park: History Revealed. *Topos magazine* online publication, published on: 25 June, 2019; <https://toposmagazine.com/seonyudo-park-history-revealed/>. Accessed on May 25, 2023.
17. Jun S. E and Dai W. A. (2018). Regeneration of Industrial Facilities into Cultural Facilities in Seoul: Studying Location Value. *Journal of Sustainability*, Vol. 10 (12), 4778. <https://doi.org/10.3390/su10124778>

18. Kashchenko O., Kovalska G., Gnatiuk L. (2020) Revitalization of the urban environment and contemporary trends of its humanization via the means of art. *Wiadomości Konserwatorskie – Journal of Heritage Conservation* 2020, 61:31-34
19. Klaus, M and Chigbu, U E (2022). Rural Revitalization -A Key to Urban Rural Land Linkages. FIG Congress. Volunteering for the future - Geospatial excellence for a better living Warsaw, Poland, 11–15 September 2022
20. Krieger, J., Higgins, D. L. (2022). Housing and health: time again for public health action. *American Journal of Public Health*, 92 (5), 758-768
21. Lagendijk, A. (2001): Regional learning between variation and convergence: The concept of ‘Mixed Land-Use’ in regional spatial planning in The Netherlands, *Canadian Journal of Regional Science*, Vol. 24 (1), 81-100.
22. Littke, H. (2015). "Planning the Green Walkable City: Conceptualizing Values and Conflicts for Urban Green Space Strategies in Stockholm". *Sustainability*, 7(8), 11306-11320.
23. Lloyd, K & Auld, C (2003) Leisure, public space and quality of life in the urban environment, *Urban Policy and Research*, 21:4, 339-356, DOI: 10.1080/0811114032000147395
24. Olubi A. R. (2019). The Impact of Land Use on Urban Aesthetics: A Case of Ojoo In Ibadan, Nigeria. A conference presented at International Conference on Architecture and Urbanism, 2019, pp. 320-327.
25. Padeiro, M Ana Louro & Nuno Marques da Costa (2019) Transitoriented development and gentrification: a systematic review, *Transport Reviews*, 39:6, 733-754, DOI: 10.1080/01441647.2019.1649316
26. Penica, M., Svetlanab, G., Murgul, V. (2015). Revitalization of Historic Buildings as an Approach to Preserve Cultural and Historical Heritage. *Procedia Engineering* 117, 883 – 890
27. Rahbarianyazd, R. (2017). Sustainability in Historic Urban Environments: Effect of gentrification in the process of sustainable urban revitalization. *Journal of Contemporary Urban Affairs*, 1(1), 1-9. [https://doi.org/10.25034/1761.1\(1\)1-9](https://doi.org/10.25034/1761.1(1)1-9)
28. Ramlee, M., Omar, D., Ynusu, R M., and Samadi, Z. (2015). Revitalization of urban public spaces: An overview. *Procedia - Social and Behavioral Sciences* 201 ( 2015 ) 360 – 367.
29. Rode, P., Heeckt, C., Ahrend, R., Huerta Melchor, O., Robert, A., Badstuber, N., Hoolachan, A., and Kwami, C., 2017. Integrating national policies to deliver compact, connected cities: an overview of transport and housing. Coalition for Urban Transitions, London and Washington, DC. Available at: <http://newclimateconomy.net/content/cities-working-papers>.
30. Rotimi, F. (2022). Special Report on New Bus Terminal in Ibadan. A newspaper article of Radio Nigeria, published on May 26, 2022. Accessed on: May 25, 2023. <https://radionigeriaibadan.gov.ng/2022/05/26/special-report-on-new-bus-terminal-in-ibadan/>
31. Seyed-Mohammad, H. F., & Doratli, N. (2022). Evaluation of resilience in historic urban areas by combining multi-criteria decision-making system and GIS, with sustainability and regeneration approach: The case study of tehran (IRAN). *Sustainability*, 14(5), 2495. doi:<https://doi.org/10.3390/su14052495>

32. Shi, J.; Yang, X. (2022). Sustainable Development Levels and Influence Factors in Rural China Based on Rural Revitalization Strategy. *Sustainability*, 14, 8908. <https://doi.org/10.3390/su14148908>
33. Song, Y., & Knaap, G. (2004). Measuring the effects of mixed land uses on housing values. *Regional Science and Urban Economics*. 34(6), 663-680, <https://doi.org/10.1016/j.regsciurbeco.2004.02.003>.
34. Sugden, E. (2017). The Adaptive Reuse of Industrial Heritage Buildings: A Multiple-Case Studies Approach. A Master of Arts thesis presented to the University of Waterloo.
35. Surya B, Ahmad DNA, Sakti HH, Sahban H. (2020). Land Use Change, Spatial Interaction, and Sustainable Development in the Metropolitan Urban Areas, South Sulawesi Province, Indonesia. *Land*. 2020; 9(3):95. <https://doi.org/10.3390/land9030095>
36. Truong, S., Gray, T., Ward, K. (2022). Enhancing urban nature and place-making in social housing through community gardening. *Urban Forestry & Urban Greening*, 72, <https://doi.org/10.1016/j.ufug.2022.127586>.
37. Tweed, C. and Sutherland, M. (2007). Built cultural heritage and sustainable urban development. *Landscape and Urban Planning*, 83 (1), 62-69, [10.1016/j.landurbplan.2007.05.008](https://doi.org/10.1016/j.landurbplan.2007.05.008)
38. Wheeler, S. M. (2002) *The New Regionalism: Key Characteristics of an Emerging Movement*, *Journal of the American Planning Association*, 68:3, 267-278, DOI: 10.1080/01944360208976272
39. Wikantiyoso, R and Suhartono, T. (2018). The Role of CSR in the Revitalization of Urban Open Space for Better Sustainable Urban Development. *International review for spatial planning and sustainable development*, Vol.6 No.4, 5-20
40. Yassin, H.H. (2019). Livable city: An approach to pedestrianization through tactical urbanism. *Alexandria Engineering Journal*. 58(1), Pages 251-259, <https://doi.org/10.1016/j.aej.2019.02.005>.
41. Zheng, H. W., Shen, G. Q., Wang, H (2014). A review of recent studies on sustainable urban renewal. *Habitat International*, 41, 272-279, <https://doi.org/10.1016/j.habitatint.2013.08.006>.
42. Zhou, Y., Li, Y., Xu, C. (2020). Land consolidation and rural revitalization in China: Mechanisms and paths. *Land Use Policy*, 91, <https://doi.org/10.1016/j.landusepol.2019.104379>.

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