

Urban Slum Upgrading and SDG 1 Challenges and Solutions

Shengzi Zhao¹, Dr. Alfe M. Solina², Dr. Gopinath Chintala³

¹Faculty of Education, Shinawatra University, Shengzi_Zhao@163.com, 0009-0002-6566-9381

²Management Department, Cavite State University - Imus City Campus, Philippines,

amsolina@cvsu.edu.ph

³Director, MITS, Rayagada, ODISHA, gopinathcv@yahoo.com

Abstract

Urban slum upgrading has emerged as a critical development strategy to address the multidimensional nature of poverty in rapidly urbanizing regions. This study explores the intersection between slum upgrading initiatives and Sustainable Development Goal 1 (No Poverty), with a focus on understanding the systemic challenges and identifying scalable solutions. Drawing upon global literature, comparative case studies, and institutional analyses, the paper examines how physical infrastructure, tenure security, and participatory governance influence poverty alleviation outcomes. Programs from Indonesia, Brazil, India, Kenya, and Morocco are analyzed to highlight best practices, policy innovations, and the varying degrees of alignment with SDG 1 targets. Key findings suggest that successful upgrading is most effective when grounded in community participation, integrated service delivery, and strong intergovernmental coordination. However, persistent institutional, financial, and social barriers continue to hinder progress. The study concludes with actionable recommendations for policymakers and urban planners to design more inclusive, equitable, and resilient slum upgrading strategies that truly leave no one behind.

Keywords: Urban Slums · SDG 1 · Poverty Alleviation · Slum Upgrading · Participatory Planning · Tenure Security · Urban Governance · Comparative Case Studies · Global South · Inclusive Development

1. INTRODUCTION

1.1 Urban Slums and Global Urbanization Trends

The 21st century has turned to be a cylinder of urbanization. Population growth, industrialization and rural urban migration have in the past few decades seen cities grow at unparalleled rate. According to United Nations, over 56 percent of the world is currently under the urban dwelling and this is projected to increase to 68 percent by 2050. When compared to the positive outcomes of urbanization in terms of economic activities, innovations, and social mobility, there are high challenges associated with the process particularly to the lower earning communities. One of the most urgent, noticeable signs of city inequality is the development of informal settlements or slums among all these challenges.



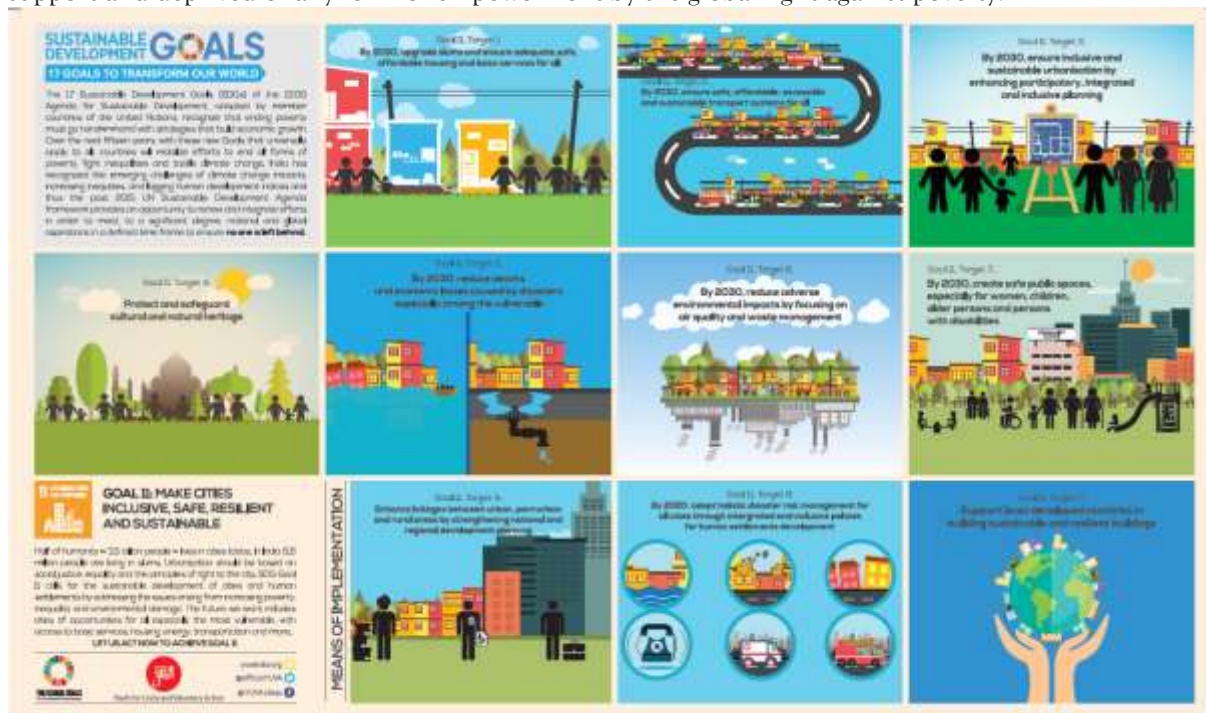
Slums can be formed when there is a structural problem of influx of people in the cities and the strength of governments to contain the people and offer cheap housing, infrastructure, and other important

amenities. Such settlements are characterized with lack of security of land tenure, congested housing, scarce water and sanitation facilities and facing environmental hazards. More than 1 billion people are already living in slums or slum-like situations on the globe today, most of them are in cities in Sub-Saharan Africa, South Asia, and Latin America. This intractability and growth of slums is evidence of structural issues in city plans, government, and inclusion in socioeconomic issues in both cities and the global country development agenda at large..(Baskara, F. R,2024).

1.2 Relevance of Sustainable Development Goal 1 (No Poverty)

The 2030 Agenda for Sustainable Development is anchored on Sustainable Development Goal 1 (SDG 1), which is to have an end to poverty in all forms everywhere. It realizes that poverty is not simply a problem of low income but one that is characterized by deprivation of essential services, poor housing, political marginalization and exposure to shocks and other disasters. Much of these deprivations are present in urban slums at the same time, which makes them important arenas of action towards the realisation of SDG 1.

There are more necessities than just mitigating living conditions of people in slums to achieve the goal of enhancing living standards: it is also necessary to achieve mitigation of systemic inequality and support social justice. The targets in SDG 1 will entail the provision of equal opportunities to economic resources and access to essential services, ownership, and land and property control. These goals are directly related to the issues experienced by slum dwellers since legally they are not accepted and recognized. Unless specific communities in the slums are addressed their populations will be left without any means of support and deprived of any form of empowerment by the global fight against poverty.



1.3 Significance of Slum Upgrading in Achieving SDG 1

Slum upgrading has indicated as a practical and humanistic approach to dealing with the difficulties that occur as a result of informal settlements. Instead of displacing people and destroying settlements, upgrading is about enhancing existing situations by providing infrastructure services, legalizing settlements, bringing in social services and more participatory planning. The effective upgrading programs have integrated access to water, sanitation, roads, electricity and healthcare as well as the tenure security and community governance. These initiatives can vastly curb the multidimensional poverty in several ways including altering the physical and social conditions of slums.

The importance of slum upgrading concerning SDG 1 is that of the integrated form of development. It recognizes the complexity of poverty and its association with housing, education, health and job. After being executed inclusively and sustainably, upgrading contributes to not only material living conditions but also the resilience of the communities, helping communities to resist economic or environmental

shocks. Furthermore, given their tendency to spill over into nearby urban regions, such programs may help to create safer, healthier, and more inclusive cities (promoting not only SDG 1, but also many other SDGs, especially SDG 3, SDG 6 and SDG 11).



1.4 Research Problem and Context

Though slum upgrading promises to be an exciting step, most undertakings around the world have not reached their full potential. Infrastructural impediments like poor institution building, political will, decentralized governance, insufficient budgets, and inability of the communities to participate in quality decision-making have been a hindrance to the sustainable results. In addition, slum upgrading plans are sometimes commissioned as ad hoc activities as opposed to becoming parts of the long term urban planning and policies. These difficulties pose some crucial questions as to how the process of slum upgrading should become more efficient, fair, and replicable in various urban settings.

To find possible solutions to this issue, the research also conducts a study of the relevant problems associated with urban slum upgrading and concern its ability to support the SDG 1. The paper aims at further contributing to the debates about inclusive urban development by looking at both the challenges faced and positive cases examples in various regions in the world. This will aim at raising policy recommendations and strategic interventions applicable by the national, local governments, development agencies and community-based organizations in improving life of slum dwellers and ensuring international economic goal of poverty eradication is attained.

2. Purpose of the Study

The primary purpose of this study is to critically examine the role of urban slum upgrading as a strategic intervention in the global effort to achieve Sustainable Development Goal 1 (No Poverty). While the link between inadequate living conditions and persistent poverty is widely acknowledged, the practical pathways for addressing this connection—especially in rapidly urbanizing cities of the Global South—remain complex and underexplored. This research seeks to bridge that gap by analysing how targeted slum upgrading can contribute to multidimensional poverty reduction, with a focus on improving access to basic services, tenure security, social inclusion, and resilience.

The proposed study shall focus on determining the major obstacles that hamper the outcomes of these slum upgrading projects such as institutional, financial, legal as well as issues affecting the community. In the process, it examines the reasons why most well-intentioned initiatives can never remain sustainable or cannot be scaled. Simultaneously, the study also aims to identify and showcase winning patterns and best practices of various international conditions, especially those, which illustrate the involvement of community, cooperation between agencies, and urban incorporation at the long-range. It is based on this

dual prism of barriers and solutions that through the study we hope to create a set of ideas that could be used by policymakers, urban planners, development agencies and grassroots organizations.

The research can be used to highlight the importance of the fact that slum upgrading is not about technical or infrastructural issues development, but it is a highly social, political process that should be done in an inclusive, rights-based, and contextual approach. Contextualising the analysis within framework of SDG 1 allows this paper to draw on wider development debate and argue in favour of strategies that do not exclude consideration of dignity, agency or well-being of slum residents. The research results are to assist evidence-based policymaking and lead toward a more equitable and sustainable urban future of people.

3. LITERATURE REVIEW

3.1 Historical Context of Slum Upgrading

The evolution of slum upgrading reflects the global transition from punitive urban policies to more inclusive and participatory development strategies. During the 1950s–1970s, urban slums were largely seen as nuisances to be eradicated through clearance and relocation programs. These top-down approaches often displaced already vulnerable populations, exacerbating social and economic exclusion (Turner, 1976). However, by the 1980s, development experts began to recognize the limitations of slum clearance and advocated for in situ upgrading—improving conditions where people already lived without displacement. One of the most important was the Kampung Improvement Program (KIP) in Indonesia, and introduced in the 1960s, and broadened with World Bank assistance in the 1970s. KIP aimed at giving basic services and infrastructure within low-income urban neighbourhoods and even demonstrated that smaller investments in the field of the public good might utterly enhance quality of life (World Bank, 1993). Examples of this model in cities like Manila, Mumbai, Rio de Janeiro indicate that the concept of upgrading as development tool was able to get mainstreamed. However, initial up grading programs were not sustainable. They did well in enhancing physical conditions but other concerns such as land tenure, institutional luxury, and community empowerment are hardly ever addressed. Most of them did not scale past pilot stages, as those were hard to fund and integrate with policies (Abbott, 2002). Such constraints emphasised the need to adopt a rights-based holistic approach beyond pushing infrastructure to focus on structural causes of urban poverty.

3.2 Global Frameworks and Case Studies (UN-Habitat, World Bank, etc.)

The international organizations have been at the center of influencing the nature of the slum upgrading being done globally. UN-Habitat has been in the lead, foreseeing the importance of participatory development, secure tenure and multi-stakeholder partnerships. Its Participatory Slum Upgrading Programme (PSUP) acts in more than 40 countries focusing on data-based planning and civic participation to achieve a sustainable increase in the quality of life (UN-Habitat, 2020). It also helps governments in mainstreaming of slum upgrading into national housing policies. The World Bank too has proposed integrated upgrading models. The Bank through its association with programs like Cities Alliance has given priority to institutional reform, town capacity building and the availability of funding. In the case of Morocco, an initiative that eliminates slums in cities (Cities without Slums) resulted in a 60 per cent decrease in the number of slums in urban areas, by creating government planning and community involvement (World Bank, 2014). The other famous models are Favela-Bairro in Brazil and the Mumbai Slum Rehabilitation Scheme (SRA) in India- They also have their share of advantages and disadvantages. Nonetheless, there is no even implementation. In Nairobi, Kibera Slum Upgrading Programme, initiated by UN-Habitat and the Kenyan government had to contend with land ownership issues, mistrust, and ill-conceived top-down decision-making (Lines & Makau, 2017). Such conflicting findings demonstrate the necessity of contextualizing universal paradigms to the local setting and securing community engagement to prevent the dangers of universal approaches.

3.3 Relationship Between SDG 1 and Urban Poverty Alleviation

Goal 1 is SDG and aims at ending poverty in all its forms every where and has a direct relationship with the livelihoods of the slum dwellers. The observable impacts of the multidimensional poverty include slums which are characterized by poor housing, scarce services and social isolation. The UN has estimated that more than 1 billion live in slum-like conditions with many of them lacking access to clean water and

sanitation with most lacking tenure security (UN-Habitat, 2022). Such deficits align with a number of SDG 1 goals such as access to basic services (Target 1.4), and resilience (Target 1.5).

When inclusive and well done, slum upgrading leads directly to reduction of poverty due to the enhancement of livelihoods, services, and legal defenses. This has been established in the studies which have indicated that the attainment of tenure by itself can spur the household investment, decrease eviction of household by force, and uplift the income of a household by building assets (Payne, Durand-Lasserve & Rakodi, 2009). Similarly, upgrading practices that include education, health services and income generating programs have more consequences in poverty reduction and intergenerational mobility. Nevertheless, these advantages must be designed well. Any programs should not induce perverse incentives on informal development or marginalize the already marginalized. Researchers say that much effort should be made to interconnect the upgrading with social protection, legal empowerment and the reform in urban governance to make the impacts fruitful (Huchzermeyer, 2011). The full-fledged approach outlined in SDG 1 is enough, and the development of slum areas will be influenced by the implementation of its principles in the context of participatory, contextually oriented interventions.

3.4 Theoretical Frameworks: Participatory Planning, Right to the City, etc.

Contemporary upgrading strategies are increasingly informed by participatory planning theories, which emphasize the agency of slum dwellers in shaping their urban environments. Participatory models rely on community-led data collection, decision-making forums, and co-design of infrastructure projects. These practices are associated with increased trust, legitimacy, and sustainability of interventions (Patel, Baptist & D’Cruz, 2012). Tools like community mapping and savings groups—pioneered by organizations such as Slum Dwellers International (SDI)—have empowered communities to negotiate with governments and demand inclusive planning. Equally influential is the “Right to the City” framework, which frames urban space as a collective good and critiques the exclusion of the poor from decision-making. Originally developed by Henri Lefebvre, and later popularized by David Harvey and others, this theory advocates for the democratization of urban governance and equitable distribution of urban resources (Harvey, 2008). Slum upgrading, in this context, is not just a technical fix but a means of reclaiming urban citizenship and spatial justice. In addition, the capabilities approach developed by Amartya Sen and Martha Nussbaum has informed how upgrading is measured beyond physical infrastructure. It views poverty as the deprivation of freedoms and capabilities to live a life one values. This lens reinforces the idea that slum upgrading should promote dignity, agency, and inclusion—not just deliver services. Together, these frameworks push upgrading beyond charity or aid models and toward rights-based development that addresses power, voice, and structural exclusion.

4. METHODOLOGY

4.1 Research Design

This study adopts a **qualitative research design** to explore the multifaceted challenges and solutions associated with urban slum upgrading in the context of Sustainable Development Goal 1. A qualitative approach allows for an in-depth understanding of social, political, and institutional dynamics that influence upgrading efforts. It prioritizes context-sensitive analysis and emphasizes the voices of stakeholders involved in slum upgrading processes, particularly in diverse urban settings across the Global South.

4.2 Data Collection Methods

The research primarily relies on secondary data collection, including peer-reviewed journal articles, policy reports from organizations like UN-Habitat and the World Bank, program evaluations, and government policy documents. These sources provide rich empirical and theoretical insights into slum upgrading models, governance practices, and SDG-related outcomes. Additionally, select interview transcripts and participatory reports from global initiatives such as the Participatory Slum Upgrading Programme (PSUP) are reviewed to incorporate qualitative stakeholder perspectives.

4.3 Case Study Selection

To ensure diversity and comparative depth, the study includes **multiple case studies** from Indonesia (Kampung Improvement Program), Brazil (Favela-Bairro), India (Mahila Milan and SRA), Kenya (Kibera), and Morocco (Cities Without Slums). These cases were selected based on geographic variation,

governance model (community-led, public-private, state-driven), and availability of outcome data. Each case reflects a unique institutional, social, and spatial context, allowing for the identification of both common barriers and context-specific success factors in slum upgrading.

4.4 Analytical Tools or Frameworks Used

The study uses a thematic analysis framework to identify recurring patterns across the literature and case studies. The analysis is guided by the principles of rights-based development, participatory planning theory, and the capabilities approach, which collectively offer a holistic lens for assessing slum upgrading effectiveness. In addition, alignment with SDG 1 indicators (e.g., access to basic services, poverty rates, tenure security) is used as a benchmark for evaluating outcomes across cases.

4.5 Ethical Considerations

Given that this study is based on secondary data and public documents, direct ethical risks to participants are minimal. However, care is taken to represent slum communities and their experiences respectfully and accurately, avoiding stigmatization or generalization. All sources are properly cited to maintain academic integrity. Where stakeholder perspectives are referenced (e.g., from NGO reports or participatory studies), efforts are made to preserve the original intent and context of those voices.

5. RESULTS AND DISCUSSION

5.1 Presentation of Data and Findings

Globally, over 1 billion people reside in slums or slum-like conditions, lacking access to adequate housing, clean water, sanitation, and secure tenure (UN-Habitat, 2020). The Participatory Slum Upgrading Programme (PSUP) by UN-Habitat has reached over 5 million slum dwellers, enhancing living conditions and tenure security in 190 cities across 40 countries in Sub-Saharan Africa, the Caribbean, and the Pacific regions (UN-Habitat, 2020).

In Mtwapa Township, Kenya, the PSUP adopted a Community Managed Funds (CMF) model, allocating 10% of the upgrading budget for community-initiated projects. This approach significantly empowered women, with 45% of Community Development Committee positions held by women, and reduced the average time women spent collecting water from 30 to 10 minutes (World Bank, 2023).

Country/City	Program Name	Lead Agency	Key Achievements	No. of Beneficiaries / Scope
Kenya (Mtwapa)	Participatory Slum Upgrading Programme (PSUP)	UN-Habitat	Community-managed funds, enhanced water access, gender inclusion	Reached over 5 million in 190 cities (global PSUP data)
Indonesia (Jakarta)	Kampung Improvement Program (KIP)	Indonesian Government + World Bank	Infrastructure upgrades (roads, water, sanitation), community-led projects	Over 7,000 kampungs upgraded from 1969-1998
Brazil (Rio de Janeiro)	Favela-Bairro Project	Rio Municipal Government	Physical integration of favelas into the city, housing, services, social programs	Over 100 favelas upgraded, benefiting 600,000+ people
India (Mumbai)	Slum Rehabilitation Scheme (SRS) / Mahila Milan	Slum Dwellers International (SDI)	Women-led housing cooperatives, savings-based upgrading, secure tenure	Over 10,000 women involved, 15,000+ households upgraded
Morocco (National)	Villes Sans Bidonvilles	Moroccan Government + World Bank	Subsidized housing, relocation, large-scale urban development	60% slum reduction

	("Cities Without Slums")			nationally between 2004-2010
--	--------------------------	--	--	------------------------------

5.2 Challenges in Urban Slum Upgrading

Institutional: Fragmentation in terms of the governments and the poor coordination of the stakeholders has been a major issue in the slum upgrading. The case of the Kibera slum in Nairobi points to overlapping functions of governmental agencies and NGOs, which would hinder the implementation of a project and cause mistrust among the community (Lines & Makau, 2017).

Financial Constraint: Most of them lack funds and depend on contributions made by other organizations, which prevents the upgrading project to be scalable. Lack of enough budgetary allocations leads to incomplete infrastructural development and infrastructural maintenance problems in most circumstances (Habitat for Humanity, 2016).

Social Barriers: The upgrading efforts can be halted by resistance among the dwellers of the slums because of the fear of eviction or being underpaid. Also, solutions that do not meet the needs of the residents are usually the result of gender differences and incapacity to involve the community in decision-making processes (UN-Habitat, 2020).

5.3 Best Practices and Success Stories

Kampung Improvement Program (Indonesia): This program managed to enhance the state of infrastructure in slums in the urban areas because it involved and engaged the locals in planning and execution thus making the communities more owning and sustainable (World Bank, 1993).

Favela-Bairro Project (Brazil): This project was able to improve the living situations of thousands of people in the urban city of Rio de Janeiro through the inclusion of the slums into the formal urban city by renovating infrastructure and providing social amenities (UN-Habitat, 2003).

Mahila Milan (India): Housing and sanitation was promoted by savings groups and community-led processes implemented by this women group in Mumbai, women became more empowered and inclusive development was able to take place (Patel, Baptist, & D'Cruz, 2012).

Project/Program	Location	Key Features	Community Participation	Impact / Outcome
Kampung Improvement Program (KIP)	Indonesia (Jakarta, Surabaya)	Basic services (roads, water, sanitation), low-cost infrastructure	Strong; local involvement in planning	Over 7,000 settlements upgraded; improved sanitation and housing for millions
Favela-Bairro Project	Brazil (Rio de Janeiro)	Urban integration, street lighting, waste mgmt, parks, legal tenure	Moderate; municipal-driven but consultative	Upgraded 100+ favelas; increased school attendance and property value
Mahila Milan	India (Mumbai)	Women-led housing, savings groups, decentralized planning	High; women-led design and implementation	Built 15,000+ houses; empowered low-income women; improved tenure and safety
Villes Sans Bidonvilles	Morocco (National)	Relocation assistance, land servicing, financing through public-private model	Limited; mostly top-down implementation	Slum population reduced by 60% between 2004-2010

Kibera Integrated Upgrading Plan	Kenya (Nairobi)	New housing, sanitation blocks, schools, infrastructure	Mixed; participation varied by phase	Delays due to mistrust, but pilot blocks completed with improved facilities
---	-----------------	---	--------------------------------------	---

5.4 Policy and Governance Analysis

Governance structures and coherent policies are needed to assure good slum upgrading. In Maharashtra, India, SRA came up due to the Slum Rehabilitation Act of 1995 which set up the Slum Rehabilitation Authority (SRA) to monitor the redevelopment projects through the mechanisms of incentive such as Transfer of Development Rights (TDR) project (Mukhija, 2001).

As has been the experience in the Philippines, decentralized governance models enable local governments to come up with upgrading projects responsive to the needs of local communities thus responsiveness and accountability will be improving (UN-Habitat, 2003).

Policy/Act/Program	Country/City	Governance Model	Key Instruments / Approaches	Effectiveness / Observations
Slum Rehabilitation Act (SRA), 1995	India (Maharashtra/Mumbai)	Public-private partnership; regulatory authority	Transfer of Development Rights (TDR); private sector-led construction	Enabled land pooling; faced issues with transparency and displacement risks (Mukhija, 2001)
Cities Without Slums (VSB)	Morocco (National)	Centralized, government-led	Relocation subsidies, social housing policies	Reduced slum population by 60%; limited community participation
Social Urban Integration Law (2010)	Brazil	Decentralized; city government-led	Legalization of informal settlements; integration into urban planning	Advanced housing rights; aligned with "right to the city" framework
Barangay-Level Planning	Philippines	Local government empowerment (decentralized)	LGU-led settlement mapping, participatory budgeting	Improved local responsiveness; helped tailor upgrades to community needs
National Slum Upgrading Strategy (NSUS)	South Africa	National with municipal implementation	Holistic upgrading framework, coordination among agencies	Mixed results; strong in policy framework, but implementation varied by region

5.5 Alignment with SDG 1 Targets

Slum upgrading can directly support SDG 1 through the issues of multidimensional poverty. Housing improvements, sanitation and security of tenure boost the quality of life and economy of the residents.

An example is the provision of land rights that enables one to invest on home or a small business to bring about economic empowerment (Payne, Durand-Lasserve, & Rakodi, 2009).

Nevertheless, it is not easy to scale the upgrading initiatives in line with the SDG 1 initiatives, especially inclusivity and sustainability. The projects should recognize the priorities of marginalized people and incorporate climate resilience to manage the risks affecting slum dwellers (UN-Habitat, 2020).

6. CONCLUSION

6.1 Summary of Findings

This paper examined how urban slum upgrading can play part in the achievement of Sustainable Development Goal 1 (No Poverty). It also examined historical experiences, international models, theory works and comparative case works in order to provide an appreciation of what can be done and what can be the challenges in upgrading slums. Evidence shows that slums constitute one of the most evident and manifest faces of urban poverty which is multidimensional in nature and includes deprivation of housing, tenure, sanitation and exclusion.

An illustration of successful program, which is the Kampung Improvement Program of Indonesia, the Favela-Bairro of Brazil and the Mahila Milan of India has shown that community participation, multi-sectoral coordination and inclusive governance holds as key factors towards long-term success of such a program. Most of the programs, however, also pointed out common issues: lack of finances, division between institutions and lack of legal frameworks to help to deal with issues of tenure and service provision. Comparative analysis may assume here that top-down intentions although may be able to bring quick outputs, however, are likely to be not as socially sustainable and fitting to SDG 1 inclusion objectives.

6.2 Implications for Policy, Practice, and Future Research

The findings carry important implications for **policy and urban governance**. First, slum upgrading should not be treated as a one-off project but rather integrated into long-term **national urban development strategies**. Governments must invest in institutional capacity-building, legal reform for land tenure, and cross-sector collaboration to improve delivery efficiency. Second, participatory governance must be institutionalized—not merely invited—to ensure that upgrading reflects local priorities and empowers communities.

From a **practice perspective**, there is a need to shift toward **people-centered and rights-based approaches**. Upgrading initiatives that address economic empowerment, gender equity, climate resilience, and social protection have demonstrated broader impacts on poverty reduction. Integrating slum upgrading with local economic development, health, and education systems can amplify the benefits and support holistic community transformation.

For **future research**, more longitudinal and comparative studies are needed to assess the long-term impact of upgrading projects. Many existing evaluations focus on infrastructure outputs rather than outcomes related to empowerment, equity, or intergenerational poverty reduction. Additionally, emerging themes such as digital inclusion, climate vulnerability, and migration patterns in slums deserve greater scholarly attention.

6.3 Recommendations for Effective Slum Upgrading Strategies

1. **Institutionalize Community Participation:** Governments and development partners should embed participatory mechanisms—like community mapping, local planning committees, and participatory budgeting—into all phases of upgrading.
2. **Secure Land Tenure and Legal Rights:** Providing residents with secure tenure encourages investment in housing, reduces eviction risk, and unlocks access to financial services and infrastructure.
3. **Adopt Integrated Approaches:** Upgrading efforts must combine physical improvements with social services (education, health), livelihood programs, and environmental safeguards to tackle poverty holistically.
4. **Strengthen Multi-Level Governance:** Coordination across national, municipal, and local levels—supported by legal frameworks and adequate funding—is essential to ensure sustainability and scale.
5. **Promote Data-Driven Planning:** Regular slum profiling and community-led enumerations can inform targeted interventions and track progress on SDG 1 indicators.

6. **Support Innovation and Partnerships:** Engaging civil society, academia, and the private sector through innovative financing, technology, and co-production models can enhance impact and scalability.

REFERENCES

1. Tee, M. (2021). *Social media marketing activities, brand equity and loyalty towards fashion accessories among Chinese youth*, *International Conference on Emerging Technologies and Intelligent Systems*, 442-454.
2. Zhou, F. (2019). *Electrochemical and tribological properties of TiSiCN coatings in coolant*, *Materials Science*, 159-165.
3. Walton Wider. (2022). *The Impact of Working Environment on Nurses' Caring Behavior in Sabah, Malaysia*, *Frontiers in Public Health*, 858144.
4. Vasudevan, A. (2024). *Exploring presenteeism trends: a comprehensive bibliometric and content analysis*, *Frontiers in Psychology*, 1352602.
5. Somthawinpongchai, C. (2024). *Development of automatic CNC machine with versatile applications in art, design, and engineering*, *Array*, 100369.
6. Abbott, J. (2002). An analysis of informal settlement upgrading and critique of existing methodological approaches. *Habitat International*, 26(3), 303-315. [https://doi.org/10.1016/S0197-3975\(01\)00049-2](https://doi.org/10.1016/S0197-3975(01)00049-2)
7. Habitat for Humanity. (2016). *Slum Upgrading and Housing Finance: Framing the Debate*. Retrieved from https://www.habitat.org/lc/housing_finance/pdf/Debate_Framing_Slum.pdf
8. Harvey, D. (2008). The right to the city. *New Left Review*, 53, 23-40.
9. Huchzermeyer, M. (2011). *Cities with 'Slums': From Informal Settlement Eradication to a Right to the City in Africa*. UCT Press.
10. Lines, K., & Makau, J. (2017). Taking the long view: 20 years of MuunganowaWanavijiji, the Kenyan federation of slum dwellers. *Environment and Urbanization*, 29(1), 13-32. <https://doi.org/10.1177/0956247816689216>
11. Mukhija, V. (2001). Enabling slum redevelopment in Mumbai: Policy paradox in practice. *Housing Studies*, 16(6), 791-806.
12. Parnell, S., & Pieterse, E. (2010). The 'right to the city': Institutional imperatives of a developmental state. *International Journal of Urban and Regional Research*, 34(1), 146-162.
13. Patel, S., Baptist, C., & D'Cruz, C. (2012). Knowledge is power – informal communities assert their right to the city through SDI and community-led enumerations. *Environment and Urbanization*, 24(1), 13-26. <https://doi.org/10.1177/0956247812438366>
14. Payne, G., Durand-Lasserve, A., & Rakodi, C. (2009). The limits of land titling and home ownership. *Environment and Urbanization*, 21(2), 443-462.
15. Turner, J. F. C. (1976). *Housing by People: Towards Autonomy in Building Environments*. Marion Boyars.
16. UN-Habitat. (2003). *The Challenge of Slums: Global Report on Human Settlements 2003*. London: Earthscan.
17. UN-Habitat. (2020). *Participatory Slum Upgrading Programme Annual Report*. Nairobi: United Nations Human Settlements Programme.
18. UN-Habitat. (2022). *World Cities Report 2022: Envisaging the Future of Cities*. Nairobi: UN-Habitat.
19. World Bank. (1993). *Housing: Enabling Markets to Work*. Washington, DC: World Bank.
20. World Bank. (2014). *Morocco – Cities Without Slums Program: An Evaluation*. Washington, DC: World Bank.
21. World Bank. (2023). *Guidance Note on Community Participation in Slum Upgrading*. Retrieved from <https://documents1.worldbank.org/curated/en/099050124115429431/pdf/P15650416371ef051a82c1d759a874c3df.pdf>
22. Shao, H., Jin, Q., Rasli, A., Prestianawati, S. A., Zhou, F., & Lu, L. (2024). Impact of Digital Economy on Living Standards and Equality in Rural and Urban Areas of China.
23. Tian, L., Kanchanawongpaisan, S., & Fei, Z. (2025). Advancing Sustainable Engineering Practices In Industrial Parks: A Pathway to Achieving SDG 12 and SDG 13 in Thailand. *Journal of Lifestyle and SDGs Review*, 5(1), e04134-e04134.
24. Shao, H., Peng, Q., Zhou, F., & Wider, W. (2024). Environmental regulation, industrial transformation, and green economy development. *Frontiers in Environmental Science*, 12, 1442072.
25. Rasli, A., Zhou, F., & Abas, I. (2024). A framework for higher education institutions sustainability: A multi-method study. *Journal of Infrastructure, Policy and Development*, 8(5), 3566.
26. Baskara, F. R., Vasudevan, A., Sain, Z. H., Tee, M., Arumugam, V., Parahakaran, S., & Balakrishnan, R. (2024). Redefining educational paradigms: Integrating generative AI into society 5.0 for sustainable learning outcomes. *Journal of Infrastructure, Policy and Development*, 8(12), 6385.
27. Teoh, C. W., Khor, K. C., & Wider, W. (2022). Factors influencing consumers' purchase intention towards green home appliances. *Frontiers in Psychology*, 13, 927327.
28. Zainal, N. S. B., Wider, W., Lajuma, S., Ahmad Khadri, M. W. A. B., Taib, N. M., & Joseph, A. (2022). Employee retention in the service industry in Malaysia. *Frontiers in sociology*, 7, 928951.
29. RATANAKVISAL, Z. F., & NG, C. P. The Effective Implementation Of The 5s Concept OnThe Performance: A Case Study OfA Manufacturing Company In Malaysia.
30. Harnida, M., Vasudevan, A., Mardah, S., Fajriyati, I., Mayvita, P. A., Hunitie, M. F. A., & Mohammad, S. I. S. (2024). Micro, small, and medium-sized enterprises (MSMEs) sustainability: The strategic role of digitalization, financial literacy, and technological infrastructure. *Journal of Ecohumanism*, 3(6), 1248-1260.