

Review Article

Gaps in Affordable Housing Discussions: Future Research Directions for Sustainable Development Goal 11

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Abstract

Affordable housing (AH) for the urban poor has continued as a prevalent challenge across most countries of the world in the face of continuous urbanization, regardless of the popularity of AH in scholarly discussions. To provide an overview of this research area in recent times, a scoping review has been conducted in this study. The study employed a systematic search across two of the most reliable databases in this field (Scopus and Web of Science) and identified 52 studies considered relevant. Standard guidelines for scoping review were followed in this study for reliability. This review mapped the general and methodological characteristics of AH studies. Findings are that AH is indeed a well-researched study, however, studies are currently skewed towards supply-oriented challenges and remedies, to the neglect of demand-oriented issues. Most studies are limited in scope which in turn limits the methodologies in AH research. Asia continent has contributed most to the AH discussion and within Asia, India has made the most contributions. Recommendations are that future studies should capture and proactively address demand-side challenges for balance, investigate wider scopes for generalizability of findings, employ more reliable methodologies and that AH investigations should follow pragmatic approaches to achieve sustainable affordable housing.

Keywords

Affordable Housing, Housing Policy, Housing Research, Housing Supply Value Chain, Sustainable Affordable Housing, Urban Poor

1. Introduction

The world has experienced rapid urbanization, especially in the past thirty years, causing many informal settlements to emerge across developing countries and the world at large [36]. Cities across the world experience influx of immigrants in search of income-generating opportunities of the city centres, informal settlements emanate around cities to supply affordable housing to the urban poor who cannot afford

market-rate housing [75]. This continued challenge of housing the urban poor makes the Sustainable Development Goal (SDG) of an inclusive, safe, resilient, and sustainable human settlements a remote reality.

Literature reveals that many studies have investigated affordable housing (AH) over the years, with insightful contributions that have influenced policy decisions across the

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world. Examples of earlier studies include [1-8] to mention a few. Despite the apparent research focus in the past, previous contributions to knowledge and policy interventions, the prevailing challenges of affordable housing across the world is an indicator that there is a crucial need for a paradigm shift in approaches to affordable housing research, discussions, policies and practices [9-11]. It is indispensable that future affordable housing investigations employ innovative and pragmatic methods to achieve sustainable affordable housing (SAH).

Considering the foregoing, this study aims to conduct a scoping review of affordable housing scholarly discussions to highlight the existing state of affairs and future research directions for affordable housing. To achieve this, the objectives will be to:

1. To systematically search for the published literature;
2. To highlight and illustrate the characteristics of identified studies;
3. To highlight and illustrate methodologies adopted in identified studies;
4. To establish gaps and limitations in literature
5. To recommend innovative and pragmatic approaches to affordable housing studies towards sustainable affordable housing.

2. Research Methodology

This study investigated scholarly discussions on affordable housing to highlight the existing state of affairs and future directions for affordable housing, using scoping review methodology. [12] averred that an effective methodology for assessing the existing literature in a particular research domain is scoping review and this can be used to develop further studies. Many other studies have employed scoping review for similar purposes [13-15]. A scoping review requires certain guidelines that establishes the scope of study, the sources of data, and the targeted information from the included studies; this guideline is presented in Table 1. Data for this study were sourced from two major data sources – Scopus and Web of Science (WoS). Title of articles, authors, years of publication, countries/regions of publication, methodologies, aims of study, keywords, major findings, recommendations and areas of future studies were the information retrieved from included studies.

The established five-step scoping review process as evidenced in [16] was adopted for this study, having established the scope, data sources and required information for the study. These are: (1) inclusion and exclusion criteria, (2) systematic search strategy, (3) selection of studies, (4) data extraction, and (5) data synthesis. The summary of the review process is displayed in Figure 1, while detailed discussion follows.

2.1. Criteria for Inclusion and Exclusion of Studies

Included studies in this study were limited to academic

publications (journal articles, conference papers and review papers) as these studies can provide relevant information with global viewpoint. This review exercise was done between February and April 2022 (2 months). Website information, press coverage, interviews and commentaries were carefully excluded from this study.

2.2. Strategy for Systematic Search

Data retrieval is vital to a good scoping review as these are the body of knowledge upon which conclusions are to be based. Accordingly, the literature search for this study was carefully conducted. Data was sourced from two of the most reliable academic databases of WoS and Scopus as affirmed by [17, 18], also, other studies have recently used these databases for similar studies [13, 15, 19]. It is essential to include all popularly recognised keywords within the study area to enhance coverage, reliability and validity of data, as much as possible, though including all may be impossible [20]. Bibliographic data was gathered from the two databases using consistent combination of keywords from past reviews on affordable housing [21, 22]. The strings of search query employed to ensure precision in this study are presented in Table 2, while the search was conducted within “title, abstract and keywords” section of Scopus database and within “all fields” section of Web of Science. It is necessary to mention that this search was conducted on February, 16, 2022, and there may be an increase in number of studies available at later dates.

Eventually, 116 articles were identified across Scopus (74 studies), and WoS (42 studies). Two additional studies were included by applying the backward and forward snowballing nonprobability sampling technique on references lists as adduced in [19].

2.3. Selection of Studies

Selection of studies for this review began with a screening process of titles, abstracts and keywords to ensure eligibility of included studies. Studies that focused on the urban poor and affordable housing related matters, were carefully selected for inclusion. After rigorous and careful selection processes to eliminate duplications and irrelevant articles, 52 studies were considered relevant for the scoping review. The detail stages of screening process is displayed in Figure 1. The 52 studies included for this review could be deemed acceptable for a scoping review, since [23] opined that there are no specified acceptable minimum sample size for scoping reviews, but it should be thorough and meticulously done with scientific methodological approach [13]. Besides, previous studies have carried out scoping reviews with smaller sample sizes [13, 16, 24].

2.4. Extraction of Data

The researcher was responsible for the extraction of data such as the author, title, year, keywords, aim, methods, find-

ings, recommendations and country/region as displayed in Table 6. The extracted data were then subjected to thematic analysis to arrive at eight themes: Social-spatial mix in affordable housing provision, collaborative strategies for affordable housing provision, housing finance, constraints to affordable housing supply, tenure security, housing policy, general housing challenges and affordable housing solutions; in agreement with [21]. The Endnote reference manager was used to ensure proper documentation of all used documents and citations throughout the process.

2.5. Data Synthesis

This review successfully describes the scope of affordable housing in scholarly discussions. Examining the major themes, keywords as well as research focuses of reviewed studies evinced the status-quo of affordable housing, the past, the present and future research directions. In addition to contributions to the body of knowledge, this review is policy-oriented and can be informative to practitioners.

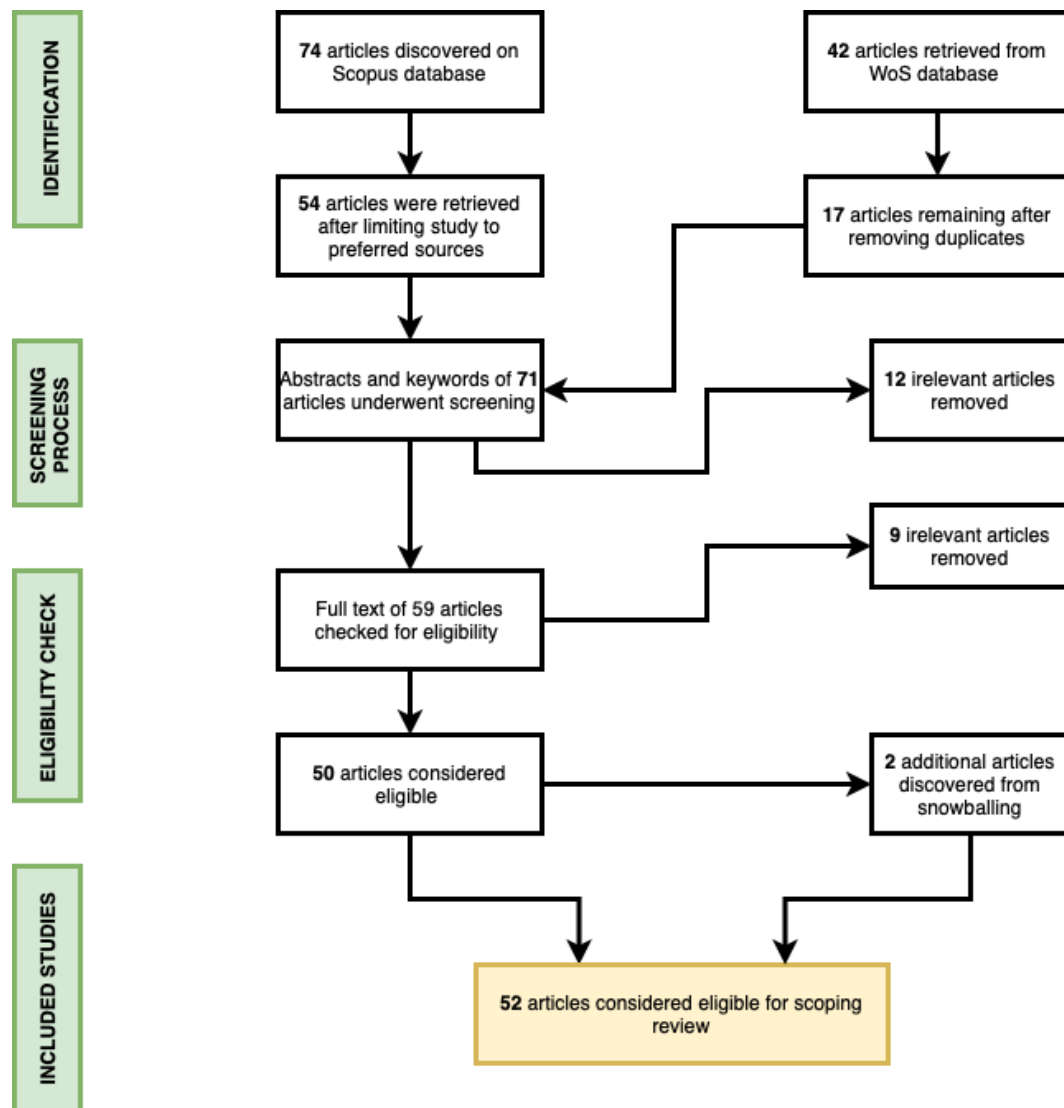


Figure 1. Flowchart of review selection process.

Table 1. The scoping review guidelines.

Scope	Data sources	Retrieved information
Review duration: two months	Scopus	Titles, authors, years of publication
Access to the full text	Web of Science	Keywords
Articles written in English language		Geospatial information

Scope	Data sources	Retrieved information
Academic publications		Methodologies Study aims Findings Recommendations Areas of future studies

Table 2. Literature search algorithms.

S/N	Keywords
1	"Urban poor" AND "affordable housing" OR "housing policy" OR "housing research" OR "housing finance" OR "housing need" OR "housing deficit" OR "public housing" OR "social housing" OR "housing provision" OR "low-income housing" OR "housing"
2	"Urban poor" AND "urban reform" OR "urban development" OR "urban housing" OR "urban poverty"
3	"Urban poor" AND "informal settlement" OR "informal housing" OR "informal sector"
4	"Urban poor" AND "affordability" OR "informality" OR "sustainability"

3. Results

3.1. General Characteristics and Status Quo of Affordable Housing Research

Findings showed that one of the earliest study on affordable housing (AH) was the 1993 study, where [25] investigated the relationship between public policy and affordable housing for the urban poor in Nigeria. This implies that affordable housing discussion has been around for the past three decades, yet the problem persists as rapid urbanization continues across the world, accompanied by slumnization [11]; suggesting a need for continued research focus on affordable housing. Figure 2 evinces the temporal distribution of published studies from 1993 to 2022. It reveals that affordable housing started gaining popularity in scholarly discussion in 2013, though it enjoyed subtle research attention between 1999 and 2012, with no studies published at all in some years, 1994 – 1998, 2000, 2003, 2004 and 2006. Though the trend in affordable housing studies is inconsistent, there was an evident decline in 2014 followed by an upsurge in 2015. The studies on affordable housing suffered another decline in 2016 but rose to the highest number of studies within a year so far, with 6 studies each in 2017 and 2018. Studies fluctuated between 2019 and 2021 with 2022 likely to experience a spike in publications later in the year. It is not surprising that there is a noticeable increase in research attention on affordable housing studies in recent years, however, it is yet unsatisfactory considering the prevailing sustainable affordable housing challenges across

the world. There is an urgent need for more research focus on affordable housing and more importantly, sustainable affordable housing relating to the urban poor, which is hitherto largely under-researched. The steady growth in affordable housing studies in recent years suggests that it is a topical issue that deserves to be further explored.

In terms of geospatial distribution of studies (Figure 4), Asia made the most contribution with 27 papers, representing 50% of total included studies. This is followed by Africa and Latin America, each with eight studies. Europe contributed five studies, Australia and North America contributed two studies each, while studies that investigated more than one continent (intercontinental) also contributed two studies. It is not surprising that most of the studies focused on Asia, which were mostly on India in particular, as Asia has a very large population of urban poor across many Asian countries. Africa and Latin America experiencing large research attention is also expected, though the research focus is low, considering the fact that Sub-Saharan Africa houses the largest population of slum dwellers in the world [11]. This may be due to lack of research funding and limited exposure of most African and Latin American Universities and research institutions, limiting the ability of their researchers to compete globally in carrying out and publicizing research activities. This is a call for more research support in funding and research attention on investigating sustainable affordable housing for the urban poor in developing countries, where the problem is more prevalent.

Additionally, this study identified certain affordable housing research areas popular in scholarly discussions which could be classified under eight broad themes. (1) Social-spatial mix in affordable housing provision, (2) collaborative strategies for

affordable housing provision, (3) housing finance, (4) constraints to affordable housing supply, (5) tenure security, (6)

housing policy, (7) general housing challenges and (8) affordable housing solutions; discussed in detail in Section 4.

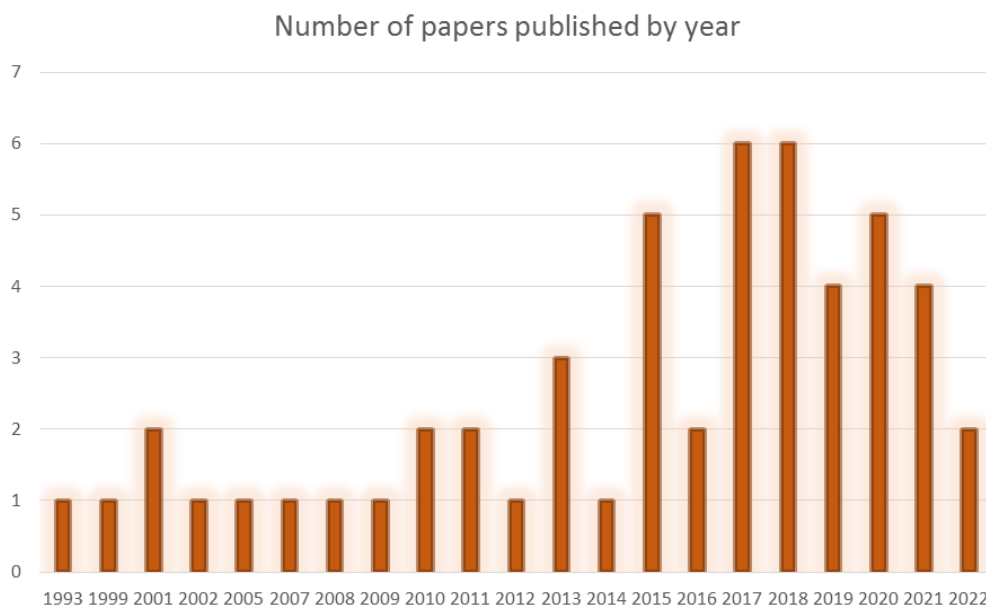


Figure 2. Temporal distribution of included studies.

3.2. Methodological Characteristics of Affordable Housing Research

Tables 3, 4, 5, and Figure 3 display the methodological characteristics of the included studies in this review, which includes the various data collection and analysis techniques, target audiences, and scope for study sampling. Table 3 evinces that interviews, observations, case study examples, literature review and review of published data are found to be most widely adopted data collection methods in previous studies. Literature review accounted for over 28% of reviewed studies, 25% used interviews to gather data, 23.08% used observation while another 25% reviewed published data. Other methods used by previous studies for data collection includes, questionnaires, focus group discussions, expert consultations, workshops, reports, Autonativ Electronic Navigation Map (AMAP) and case study example, while 7% of included studies failed to disclose data collection methods. It is not surprising that interviews, observations, and reviews constitute the most widely used methods in reviewed studies, considering that affordable housing studies are largely qualitative in nature and usually would involve investigating an entire settlement or more, where findings will be generalized from a sample to the population. Survey generally involves data collection from respondents through observations, questionnaires, or interviews with intentions to generalize findings from sample to a population [26]. Observation is also used to overcome the bias of interviews and questionnaires [27]. It is however surprising that only 7.69% of previous studies employed focus group

discussions, a lesser proportion of 5.76% consulted experts and a much lesser percentage of 1.92% organized workshops to gather data. This may be due to time limitations, funding, or the general difficulty in reaching and probably clustering professionals and experienced respondents for research purposes, unfortunately these limit research findings in terms of practical applications and validation in alignment with [28].

This review found that previous studies adopted different methods for data analysis after data collection in Table 4. The analytical methods used include, descriptive analysis, qualitative analysis, binomial logistics analysis, statistical analysis, ArcGIS, cluster analysis, simulation, and mixed methods. Most studies used descriptive analysis (61.54%), followed by qualitative analysis (30.77%) and mixed methods (26.92%). Statistical methods also accounted for a significant 11.54% of included studies while other methods were rarely used (below 6%). This popularity of descriptive analysis, qualitative analysis and mixed methods is as expected as these methods are most applicable for analysing qualitative data gathered through interviews, observations, workshops, and group discussions. Mixed methods are useful for studies that adopt pluralistic approaches (quantitative and qualitative methods) to derive knowledge [26, 29-34]. It is far from expectation that modern analytical tools such Computer Aided Qualitative Data Analysis System (CAQDAS) was seldom used in data analysis in reviewed studies. CAQDAS such as the NVivo program is useful for analysing data generated from interviews, observations, discussions, consultations, and questionnaires, it is also functional for validation and reliability tests [35].

Table 5 reveals that 25% of previous affordable housing

studies sampled slum dwellers as part of target audiences, studies with case studies accounted for 13.46% of total reviewed studies. Some studies gathered data from a fair number of urban authorities and institutions (7.69%), it is also worthy of note that 5.77% of included studies sampled property developers, while 3.85% sampled engineers and key informants each. Other personnel included as target audiences in affordable housing studies are Estate managers, service workers, dwellers in case study examples, and properties (observation). It is unsatisfactory that only 25% of previous housing studies sampled slum dwellers who are the beneficiaries of affordable housing, this suggests why most studies proffered supply-oriented solutions to affordable housing challenges. There is an urgent need for affordable housing discussions and policies to be balanced between supply-oriented and demand-oriented interventions; this will be achievable if more research attention is centered on slum dwellers, their activities, peculiarities, predicaments, and self-help responses. It is not surprising that a sizeable of reviewed studies adopted case study examples as target audience. It is expected that affordable housing discussion will be location based as housing challenges are not homogenous in nature [36]. Meanwhile as earlier stated, it constitutes a research gap that only few studies engaged in expert consultations as focus group discussions.

Figure 3 presents the sample scope of reviewed studies that engaged in field surveys. This review found that 50% of previous affordable housing studies sampled either one settlement or case study, 25% of studies sampled two settlements and/or case studies, only 9% of reviewed studies sampled three settlements and/or case studies, only 8% sampled four settlements and/or case studies, while another minority 8% sampled more than five settlements. In as much as affordable housing challenges vary from location to location and require individual investigations according to [36], the need for larger scope of study cannot be overemphasized for more robust research findings and also to enhance generalizability of study findings.

Table 3. Data collection methods in AH studies.

Data collection methods	Number of papers	Percentage (%)
Literature review	15	28.85
Observation	12	23.08
Interview	13	25
Questionnaire	5	9.62
AMAP	1	1.92
Review of published data	13	25

Data collection methods	Number of papers	Percentage (%)
Case study	11	21.15
Focus group discussion	4	7.69
Consultations	3	5.77
Workshop	1	1.92
Not specified	4	7.69
Reports	4	7.69

Table 4. Data analysis methods in AH studies.

Data analysis	Number of papers	Percentage (%)
Descriptive analysis	32	61.54
Qualitative analysis	16	30.77
Binomial logistics model	1	1.92
Statistical analysis	6	11.54
ArcGIS	2	3.85
Cluster analysis	2	3.85
Simulation	3	5.77
Mixed methods	14	26.92

Table 5. Respondents in AH surveys.

Target audience	Number of papers	Percentage (%)
Slum dwellers	13	25
Estate managers	1	1.92
Service workers	1	1.92
Urban authorities/institutions	4	7.69
Key informants	2	3.85
Properties	1	1.92
Engineers	2	3.85
Property developers	3	5.77
Case study	7	13.46

SAMPLE SCOPE OF REVIEWED STUDIES

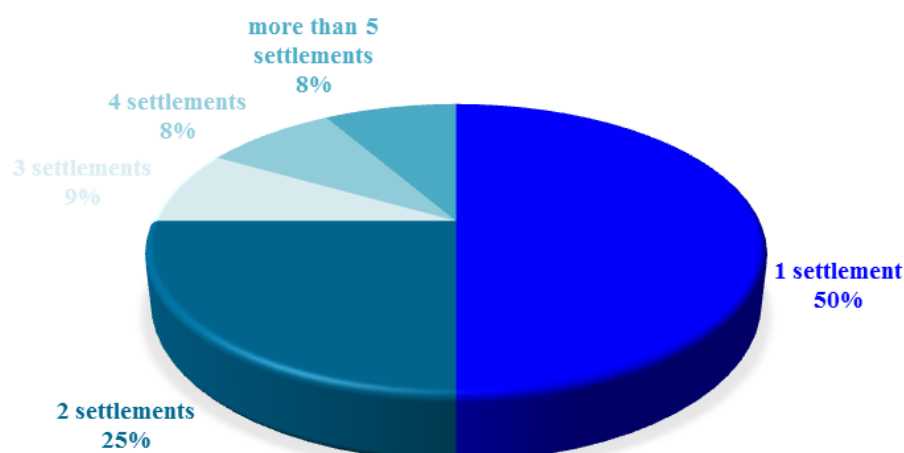


Figure 3. Sample scope of reviewed studies.

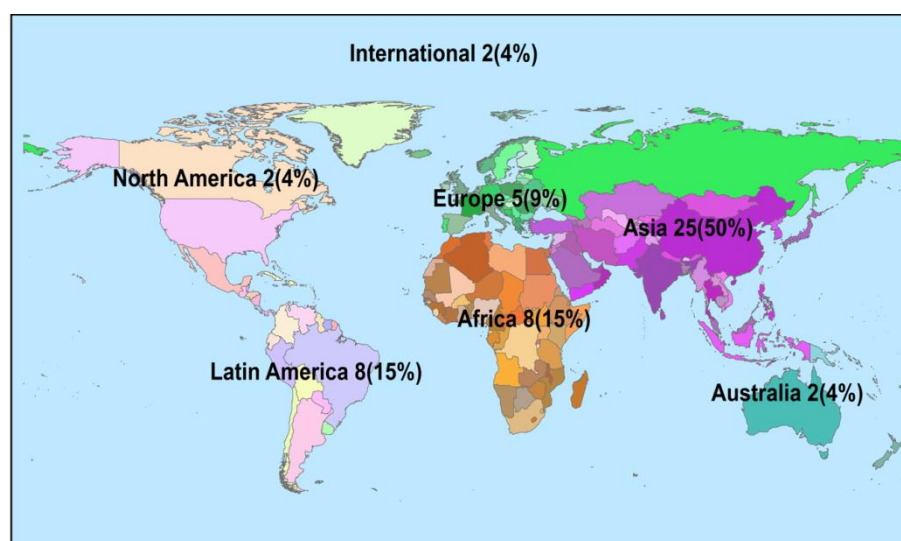


Figure 4. Geospatial distribution of studies showing numbers and percentage. (percentages are rounded off).

4. Discussion

Table 6 provides a summary of this review while Figure 5 provides a summary of findings from this study. The scoping review explored the trend in annual publications, the geospatial distribution of studies, the distribution of studies by journals and the methodological characteristics of studies.

Lastly, the review explored research themes, findings, gaps, and recommendations for future research. This section is an overview of the included studies and discusses the identified major research themes. This study developed recommendations for future research and practice based on the identified gaps. This section closes by discussing the strengths and limitations of this study.

Table 6. Content analysis of reviewed studies.

S/N	Au- thor(s)	Coun- try/R egion	Title	Study scope/keywo- rds	Study highlights	Findings	Recommendations/solutions
1	Izeogu,	Niger	Public policy and	Affordable	To examine the relationship	The success of	Government should

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
	C. V	ia/Africa	affordable housing for the urban poor in Nigeria: A study of squatter redevelopment programs in Port Harcourt.	housing, urban poor, urban redevelopment, Nigeria	between public policy and housing affordability for the urban poor in the city of Port Harcourt, Nigeria. Study established a gap in policy in that it was neither designed nor prepared for the rapid population increase that the city witnessed as a result of urbanization.	affordable housing provision is dependent upon the right policy decisions and implementation.	enable the informal housing markets by utilizing the already existent self-help housing strategies. Collaboration between government, the communities, and other organizations to address housing affordability issues.
2	Smets, P.	India/Asia	Housing finance trapped in a dilemma of perceptions: affordability criteria for the urban poor in India questioned.	Housing finance, urban poor, affordability	Formal housing finance is consequent upon the mentality of the rich who are often at the hem of affairs, making policies that are unfavourable for the urban poor in India.	Incremental finance approaches will be a more realistic way to fund sustainable affordable housing.	The urban poor build incrementally, so affordable housing finance should be designed for incremental financing.
3	Kigochie, P.	Kenya/Africa	Squatter Rehabilitation Projects that Support Home-Based Enterprises Create Jobs and Housing.	Africa, Nairobi, Home-based enterprises, Housing informal sector	Housing unaffordability and unemployment are major problems of the urban poor in developing countries. Affordable housing policies without accompanying job creation policies will not be effective. Mathare 4A Housing Project successfully adopted urban regeneration approaches by constructing new and upgrading old affordable housing, adjusting building codes, using cheaper indigenous building materials, and successfully enhanced existing HBEs, created jobs and improved the standards of living of the urban poor.	Mathare 4A Housing Project successfully adopted urban regeneration approaches by constructing new and upgrading old affordable housing, adjusting building codes, using cheaper indigenous building materials, and successfully enhanced existing HBEs, created jobs and improved the standards of living of the urban poor.	Affordable housing programs should take the form of urban regeneration to empower the beneficiaries. This will enhance the sustainability of affordable housing provision.
4	Mitlin, D.	Brazil/Latin America	Housing and Urban Poverty: A Consideration of the Criteria of Affordability, Diversity and Inclusion	Urban poverty, poverty reduction, housing.	The interrelationship between affordability, diversity, and inclusivity. Development cannot be equitable if it is not inclusive.		Proper understanding of the activities and livelihood of the urban poor to inform strategies that will be appropriate for the housing needs of the urban poor
5	J Stewart, P. B	Latin America	Community self-help and the homeless poor in Latin America. The Journal of The Royal Society for the Promotion of Health	Homelessness, housing credit schemes, housing the urban poor, informal housing, Latin America	Realistic housing solution for the urban poor in developed world is dissimilar from solutions suitable for developing world as they have different welfare control and poverty levels. The poor across the world have achieved more affordable		Housing situation in developing countries require innovative responses to ensure attainability, affordability, and sustainability. Effective housing policies will support affordable housing provision ap-

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
6	Stein, A., & Luis Castillo	Central America	Innovative financing for low-income housing improvement: lessons from programmes in Central America.	ca, self-help schemes, shack settlements, social housing, squatter housing. Innovative financing, low-income housing, affordable housing, urban poor, Central America.	housing provision for themselves than government have or are willing to provide. Identification of approaches that effectively enhanced housing situations of the urban poor such as housing policies that are inclusive of the housing needs of the urban poor, integrated interventions and collective participation of multiple players, use of transparent subsidies to target demand-side challenges, use of revolving funds among others		proaches conceived by the poor for themselves with appropriate government aid The highlighted effective mechanisms can be adapted in other regions to enhance affordable housing provision for the urban poor
7	Grant, M.	Zimbabwe/Africa	Lodging as a migrant economic strategy in urban Zimbabwe.	Affordable housing, urban poor, migrant.	Government employed forceful eviction which heightened the plight of the urban poor through the Operation Restore Order initiative in 2005	The study is a good start in investigating the predicaments of the urban poor, future research could capitalize on these research findings to explore ways to overcome the prevalent affordable housing challenges of the urban poor in Zimbabwe.	
8	Green, R. A	Turkey/Europe	Unauthorised development and seismic hazard vulnerability a study of squatters and engineers in Istanbul, Turkey.	Risk perception, seismic hazard, squatter settlement, Turkey.	Cities of developing nations are overpopulated due to urban poor immigrants looking for income-generating opportunities in the cities which results in the growth of informal settlements that offers affordable housing to the urban poor. Urban poor in Istanbul prefer self-built housing as they perceive it to be cheaper and safer than the commercially built housing by building contractors. This perception informs the urban poor to adopt innovative ways to minimize their hazard risks by living in informal settlements.	Study demonstrated how the urban poor responds to hazard vulnerability and can inform proactive approaches to prevent a recurrence in other cities of the world.	
9	Kamru	Bangl	Review of housing	Affordability,	The outcome of BSP project		Tenement housing is

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
	zzaman M. & Ogura, N.	adesh /Asia	delivery for the urban poor and the rationalization of tenement apartments in Dhaka City.	cost recovery, replicability, tenement housing, urban poor.	would be inconsistent with its intentions to alleviate housing deficit in Dhaka.		more affordable for the urban poor
10	Kala Seetharam	India/Asia	Impact of Land Use Regulations: Evidence from India's Cities.	Land use regulations, affordable housing, urban poor.	Land use controls need to be relaxed to allow vertical development in cities		An increase in floor area ratio (FAR) will result in more land consumption by the urban poor as land prices will plummet and housing will consequently become more affordable.
11	Yap, K. S., & De Wandler, K.	Thailand/Asia	Self-help housing in Bangkok.	Self-help housing, slum, urban poor, low-income housing policy, regularization, community-based organization, informal settlement, housing, upgrading, Thailand	Strategies that support community-based organizations allow the communities have better negotiations. They are effective in land acquisition, tenure security and generally in improving the urban poor's housing condition. Strategy is limited in terms of inclusiveness, effectiveness, and sustainability.		Thailand is in urgent need of a national policy targeted at housing adequacy for all.
12	Gunter, a. & Scheepers, L.	South Africa/Africa	"Crisylida Capital": Hatching Informal Township Property Markets to Benefit Low-Income Residents in Johannesburg, South Africa.	Low-cost housing, property markets, tenure	Informal settlements emerge rapidly around the world due to unaffordability of housing for the urban poor dwelling in squalors. Slum housing has potentials that can be utilized for wealth creation	The study moved housing discussion and philosophy further from slum housing being considered as 'dead capital' with no economic prospects to 'crisylida capital' that does not only hold value but has capacity for value creation.	More research attention on slum housing across the world.
13	Gurran, N. & Whitehead, C.	Australia, Europe, Oceania	Planning and affordable housing in Australia, New Zealand and England: common culture; different mechanisms.	Affordable housing, comparative housing research, inclusionary zoning, land use planning, value capture.	England housing policies informed Australian housing policies until the Town and Country Planning Act of 1947 when the policies became divergent. Housing provision in the United Kingdom is through local authorities with dominant social rental housing while on the contrary, housing in Australia is mostly through the private sector.		For effective affordable housing provision, urban policies must be designed to support it, intermediate housing should be provided and the importance of political will cannot be overemphasized.
14	Ka-	In-	New Policy Para-	Slum hous-	Policies only target inclu-		Stating policy decisions

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
	math, L.	dia/A sia	digms and Actual Practices in Slum Housing: The Case of Housing Projects in Bengaluru.	ing, housing project, affordable housing, urban poor.	siveness and efficiency on paper, the outcomes are differing from policy intentions. The promise of security of tenure is probably the defeat of the Bengaluru housing strategy.		is not as important as having an articulated understanding of government practices and variations.
15	Austin, P. & Whitehead, C.	Australia, Europe	Planning and Affordable Housing in Australia and the UK: A Comparative Perspective.	Planning, planning gain, affordable housing, inclusionary zoning	Though the affordable housing planning and delivery of these countries have a similar principle the urban regulation, property rights and housing provision approaches in each country have underlying differences. Differences in housing policies impact on the access to new affordable homes in the face of surging land values.		Affordable housing is still an urgent need in all three countries and an exchange or transfer of policies and ideas may make significant impact.
16	Dhote, K. et al	India/A sia	Social implication assessment framework for basic services to an urban poor program in India.	Social impact assessment, basic services, urban poor, slums.	The social impacts of development interventions on communities housing the urban poor in India.		Social impact assessment (SIA) should have a methodology that includes the beneficiaries, the policy makers, government, and users; to have an inclusive framework with qualitative participation that is quantifiable.
17	Nandi, S., & Gamkhar, S.	India/A sia	Urban challenges in India: A review of recent policy measures.	JNNURM, India, urban reform, governance, policy	Identification of challenges in governance that frustrates the successful execution of Indian housing reforms.	It is sustainable to plan the needs of the urban poor within urbanization management and not tackle their needs in isolation.	Decentralization of government will aid synchronization of policy intentions and fulfilment.
18	Jakhanwal, S. P	India/A sia	Urban Development and Exclusion of the Poor: An Integrated Perspective.	Urban poverty, urban divide, MDG, Slum, informal sector, sustainable livelihood	Urban divide can be summarized into the dynamics, characteristics, and the approaches of bridging the divide. Pairing urbanization and exclusion of the poor will wrongly suggest that urbanization causes poverty which in real sense is not totally true. Exclusion may be understating the situation of the poor in many countries as the situation is rather that of exploitation of the poor.	Urban poverty originated from inadequacies in urbanization processes in India and other countries.	
19	Acheampong, R. A &	Ghana/Africa	Housing for the urban poor: towards alternative financ-	Housing finance, housing micro-	Conventional mortgage finance to be too stringent for the urban poor to access		More practical spatial planning system, strategies to enhance the

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
	Anokye, P. A		ing strategies for low-income housing development in Ghana.	finance, planning system, urban poor, incremental housing, affordable housing, Ghana.	due to high interest rates, high cost of down-payment and long repayment periods.		urban poor's access to housing microfinance and strategies for cheaper housing construction cost through community-based initiatives.
20	Chioma, I. B. U	Nigeria/Africa	Local building materials: affordable strategy for housing the Urban poor in Nigeria.	Housing need, housing provision, housing affordability.	To overcome the perplexing affordable housing challenge, there is an urgent need for good governance as well as enhanced land and credit accessibility.		Use of indigenous building materials for building construction and the use of technology to enable mass housing production to crash construction cost by at least 60%.
21	Cutts, A. & Moses, S.	Argentina/Latin America	State-community collaborative strategies to enable the right to the city in Argentina.	Assisted self-help, housing policy, Argentina, social housing, right to the city.	Collaborative strategy between the state and the community enhanced housing provision in the intermediate city of Santa Fe in Argentina.		The study postulated that this approach can be a solution to housing shortages across the world and deserves to be further explored.
22	Dohnke, J. et al	Chile/Latin America	Achieving a socio-spatial mix? Prospects and limitations of social housing policy in Santiago de Chile.	Housing policy, affordable housing, housing market, Chile, segregation	Uneven social-spatial development leading to exclusion of the urban poor because of the dynamics of real estate investments and government housing policies in Chile.	Demand-based housing subsidies for the urban poor will consequent in a less socially mixed development where gentrification sets in, and the urban poor are displaced to outer-cities	
23	Zhang, C., & Man, J.	China/Asia	Examining job accessibility of the urban poor by urban metro and bus: A case study of Beijing.	Accessibility, job-housing mismatch, urban metro, affordable housing, Beijing.	Urban poor mostly depend on weak public transport systems which will usually prolong travel time of users.	Recent affordable housing locations are farther from city centres than earlier ones, suggesting that recent affordable housing sites are mostly located in farther outer cities	
24	Boyd, J. et al	Canada/North America	Supportive housing and surveillance.	Supportive housing, addiction and mental health, surveillance, social control, policing	The study adopted observation methodology to capture unadulterated data.	Study concluded that the excessive focus on security exposes the supportive housing to social control, limiting the rights of the occupiers of the affordable housing.	
25	Ram, P., & Needham, B.	India/Asia	The provision of affordable housing in India: Are commercial developers interested?	Affordable housing, supply constraints, India, market enabling strate-	The study demonstrated that private developers are willing and interested in affordable housing supply but require government support in policies that		Government should make policies that can entice private developers into investing in affordable housing development

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
				gies, commercial developers	relieve these constraints.		
26	Ahmed, I.	Vietnam/Asia	A Diagnosis of Urban Poor Housing in Vietnam	Vietnam, urban housing, urban poor, housing diagnosis.	An insightful documentation of the housing situation of the urban poor in Vietnam as it captured empirical data that included responses from the urban poor.	The study highlighted the current challenges in finding a common ground for housing affordability and sustainability in Vietnam.	
27	Amoako, C. & Boamah, E. F.	Ghana/Africa	Build as you earn and learn: informal urbanism and incremental housing financing in Kumasi, Ghana.	Collective financing, housing financing, informal urbanism, incremental housing, Kumasi.	Financing urban informal housing in third world countries can be less complex if formal planning agencies are willing to consider non-conventional financing approaches as innovative, dynamic, and flexible responses of the urban poor to the difficult formal urban planning and housing financing requirements.		Formal planning and financing institutions should make efforts to understand the financing approaches of the urban poor to inform policies that are inclusive of the urban poor and considerate of their socioeconomic conditions towards a realistic solution to sustainable affordable housing provision.
28	Johar, N.	India/Asia	Community Participation: A Cementing Process, Theorizing Various Dimensions and Approaches.	Community participation, slums, JNNURM, RAY, urban poor	Active involvement of affordable housing beneficiaries is essential to the success and sustainability of affordable housing provision.		Effective participatory approach will surpass just the inclusion of community labour and will include regeneration, where the community is empowered to be able to identify problems and solve it in the most suitable ways for their needs and capacities.
29	Mishra, A. K., & Mohanty, P. K.	Asia-Pacific	Urban policy in Asia Pacific countries: a case for inclusionary zoning and housing.	Inclusionary zoning, affordable housing, exclusionary urbanisation, planned urban development urbanisation, planned urban development	The major constraint to affordable housing provision for the urban poor is the lack of available legalized urban land at reasonable distances from job opportunities.		Policies should be implemented based on geographical and municipal differences, private developers should incentivized by government into inclusionary housing development, the inclusionary housing/zoning strategies should be rooted in urban land and housing market processes and the processes should generally capture both efficiency and equity objectives.
30	Shirgao	India	Predictors of	India, Kolkata	Exposure to significant risk		Disaster alleviation

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
	kar, M. A. R	India/America	household exposure to monsoon rain hazards in informal settlements.	ta, informal settlement, slum, extensive risk, adaptation	in informal settlements vary by income level, quality of building, housing location among others.		interventions should be targeted at the poorest urban poor while enhancing the provision of infrastructure and security of tenure to encourage permanent housing construction.
31	Sliwa, M.	Colombia/Latin America	Master plans and urban ecosystems: How the poor transform land-use from rigid into organic-A case from Colombia.	Land-use planning, informality, social housing, urban poor, livelihood, Latin America.	Focus of housing suppliers on housing quantity with no considerations for accessibility of location, connectivity, and functionality of housing negatively impacts on residents' income-generating opportunities and socio-economic mobility.	Dwellers of the examined social housing converted their housing to make room for income-generating activities consequent upon the far distance from city centres.	Urgent revision of the strict zoning laws that control these government social housing into more flexible regulations that enable mixed land-uses in Latin America.
32	Begum, H. et al	Bangladesh/Asia	Assisted Community Housing Initiative in Dhaka: Rethinking role of NGOs in affordable housing development.	Affordable housing, community housing, slum, NGOs, Dhaka	Assisted community housing is an effective approach for sustainable affordable housing development in developing countries.		Policy interventions to support and enable NGO-community partnership as an approach towards sustainable affordable housing.
33	De Duren, N. R. L	Latin America	Why there? Developers' rationale for building social housing in the urban periphery in Latin America.		It is unfair for housing policies to force the urban poor to choose between access to housing and access to income-generating opportunities of the urban centres.	Property market works to the tune of institutional provisions.	Housing problems should be examined from all necessary angles as one-sided analyses would usually result in incorrect suppositions on policy actions.
34	Desmond, M.	America	Heavy is the house: Rent burden among the American urban poor.		The urban poor in America continues to get poorer while housing costs continue to rise.	Affordable housing for the urban poor is also a problem in developed countries and requires more research attention.	
35	Feather, C.	International	Municipal finance for housing: local government approaches to financing housing in cities.	Municipal finance, local government, affordable housing, fiscal policy, cities, capacity-building.	Districts should have a robust understanding of the housing conditions within the district, and this should inform a realistic and pragmatic housing provision strategy for the municipality.	A documentation of alternative financial strategies available to local governments to achieve inclusive and sustainable urban development in their municipalities.	
36	Shirgao kar, M. & Rumba ch, A.	India/America	Investigating housing tenures beyond homeownership: a study of informal settlements in Kolkata, India.	Housing choice, housing policy, housing tenure, India, informality, slum upgrad-	There is a growing majority opinion that other forms of housing tenure may benefit the urban poor more than homeownership.	Leasing or renting favours new migrants and large households more than homeownership.	Policies should support other forms of housing tenures as homeownership is not always affordable.

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
37	Shrestha, S. B., & Taniguchi, O.	Nepal/Asia	A Holistic Approach for Providing Affordable Housing to the Urban Poor of Nepal.	Nepal, holistic approach, affordable housing, squatter settlement, urban poor.	Housing the urban poor is a complex problem across the world.	Providing affordable housing for the urban poor requires a holistic approach with active collaborations of public organizations, private organizations, and the people.	An innovative conjunction of both public-private partnership and participatory approach to achieve sustainable affordable housing.
38	Amin, N. N	Malaysia/Asia	Housing Design for Urban Poor in Kuala Lumpur: A Literature Review.		It is essential for housing to be adequately comfortable for its users.	Most low-income housing in Malaysia may be deficient in design which impacts on users' satisfaction.	Housing design directly impacts on users' satisfaction, thus, important elements such as safety, privacy, space arrangement, layout planning, local climate, culture, and social integration should be factored into housing design.
39	Feather, C.	Korea/Asia	The Two Million Housing Drive in Korea.	Korea, construction, developing countries, real-estate, public-private partnership, housing deficit.	The study investigated The Two Million Housing Drive project in Korea.	The program was effective in enhancing the urban poor's access to affordable housing through industrialized mass housing initiative and subsequently supported demand-side housing remedies such as home loan subsidization and others.	Policies should integrate both supply-side and demand-side solutions to enable the achievement of sustainable affordable housing for the urban poor and vulnerable.
40	McCawley, D. G	Chile/Latin America	Law and Inclusive Urban Development: Lessons from Chile's Enabling Markets Housing Policy Regime.		The approach is successful in AH provision but has a major failure.	This strategy contributes to urban exclusion and limits inclusionary housing.	
41	Todd, G., et al	Tanzania/Africa	City Profile: Dar es Salaam, Tanzania.	Urban, planning, urbanization, neighbourhoods, land policy, settlements	The dynamics of the former Tanzanian capital city may be affected by the total relocation of government offices to Dodoma- the present Tanzanian capital	A major gap between policies and what is on ground regarding city planning and housing.	Government should make realistic plans for policy implementation and create databases that will enable future planning.
42	Basile, P. & Ehlenz, M.	International	Examining responses to informality in the Global South: A framework for community land trusts and informal settlements.	Informality, community land trusts, global south, land rights, informal settlements, affordable housing	Community land trusts (CLT) is an innovative bottom-up approach to affordable housing provision- as a response to informality challenges in the global south.	The strengths and limitations of this strategy were analysed to generate a framework.	

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
43	Gupta, N. & Kavita	India/Asia	Slum Rehabilitation Through Public Housing Schemes in India: A Case of Chandigarh.	Chandigarh, housing schemes, India, public housing, slum rehabilitation, urban poor	It is impossible to achieve sustainable development without ensuring that human settlements are sustainable.	Provisions of housing adequacy in the Indian housing policies are totally ignored in the sampled colonies.	Government should work to eliminate the identified gaps across the conception, planning and implementation of policies while NGOs are encouraged to partner with government to proactively address housing challenges in Chandigarh.
44	Malik, S. et al	India/Asia	Developing occupant archetypes within urban low-income housing: A case study in Mumbai, India.	Occupant archetype, behaviour, energy use, thermal comfort, low-income housing.	Three archetypes among the occupants- Indifferent Consumers, Considerate Savers and Conscious Conventional;	Findings established the challenges that are likely to surface when housing development schemes are not inclusive of the beneficiaries.	Building designs should be occupant-centric with due considerations for their socio-economic characteristics, ability to adapt and their energy consumption requirements and habits.
45	Rahman, M. A & Ley, A.	Bangladesh/Asia	Micro-credit vs. Group savings—different pathways to promote affordable housing improvements in urban Bangladesh.	Housing finance, micro-credit, group savings, urban poverty, Bangladesh	There is an urgent need for alternative means of funding affordable housing.	The urban poor in Bangladesh use micro-credits for housing improvement, housing activities and for other livelihood supports on the one hand and group savings program supported by international agencies for housing development on the other hand.	The two systems of microfinance and group savings can be combined so that individual limitations are overcome and the strengths of both programs can be maximized.
46	Yu, S. et al	China/Asia	An assessment of urban park access using house-level data in urban China: Through the lens of social equity.	Public park, green space, accessibility, spatial differentiation, social justice, environmental equity.	Social equity is an innovative contribution to affordable housing discussion which prior had mostly focused on household income, transportation cost, housing accessibility and housing equality.	Urban redevelopment projects through the mass affordable housing projects displace the urban poor out of inner cities to locations in outer cities, limiting their access to urban parks and green facilities.	
47	Agarwal, S. et al	India/Asia	Affordable housing in urban India: a review of critical success factors (CSFs) addressing housing adequacy with affordability for the urban poor.	Sustainability, housing, critical success factors, affordability, adequacy, urban poor.	The factors of housing adequacy include but not limited to, proximity to source of income, operation costs of housing, maintenance costs of housing and other diverse expenses.	The urban poor considers housing adequacy as much as, if not higher than housing cost.	For housing to be sustainable and affordable, these factors must be considered in housing provision.
48	Borsuk, I.	Turkey/Europe	Gendered dispossession and women's changing poverty by	Poverty, gender, slums, urban development,	When transition from informal to formal property causes gender, racial and marriage related issues in	Such redevelopment projects expose women to dispossession and displacement to outer	

S/N	Author(s)	Country/Region	Title	Study scope/key words	Study highlights	Findings	Recommendations/solutions
			slum/squatter redevelopment projects: A case study from Turkey.	dispossession.	the land market, it is no longer empowering women's right.	cities; limiting their access to income-generating opportunities, city services, and enhancing social exclusion	
49	Mausio, A.	Fiji/Oceania/(Asia)	Spectre of neoliberal gentrification in Fiji: the price Suva's poor must pay.	Gentrification, marginalisation, neoliberal urbanism, revanchist cities, urban housing crisis.	Urban housing unaffordability are pronounced in Suva city areas in Fiji as a result of economies of scale and the limitations in Fiji's land tenure system.		Levying wealth tax on emergent asset class like corporate realtors, increasing the allocation for public housing in the budget, increasing the annual subsidies for public housing to de-commodify affordable housing.
50	Perera, U. & Lee, P.	England/Europe	A relational lens to understand housing affordability in the 21st Century.	Housing affordability, 21st century housing context, Giddens' theory of structuration, new settlements in England.	Housing affordability is beyond household income and housing cost.	Housing affordability is beyond the intrinsic rental or housing prices and household income but also involves complex household motivations and how households' trade-off these motivations with their housing costs.	The study establishes the relevance of inclusive governance and the urgent need for dynamic housing policies for sustainable affordable housing provision in a developed economy.
51	Jeetika Malik et al	Pakistan/Asia	Investigation of informal housing challenges and issues: experiences from slum and squatter of Lahore.	Squatters, slums, urban poor, informal housing, Lahore, Pakistan.	The growth of informal settlements is a result of poor governance, disparity in infrastructure, land issues, social issues, limited community participation and vulnerable living conditions.		Affordable housing challenges require an in-depth empirical study of the living conditions of the urban poor for acceptable spatial and sequential resolutions.
52	Muniappa, M.	India/Asia	Housing policy research in India: a scoping review and thematic analysis.	India, thematic analysis, housing policy, scoping review, housing research.	Past literature focused on supply-side strategies for affordable housing provision with an apparent lacuna in demand-side strategies for affordable housing provision.	Housing discussion in India focused on the emergence of housing markets and government's roles in enabling it with less attention on the philosophy that originated it.	The need for balance in demand and supply oriented investigations and remedies in AH discussions.

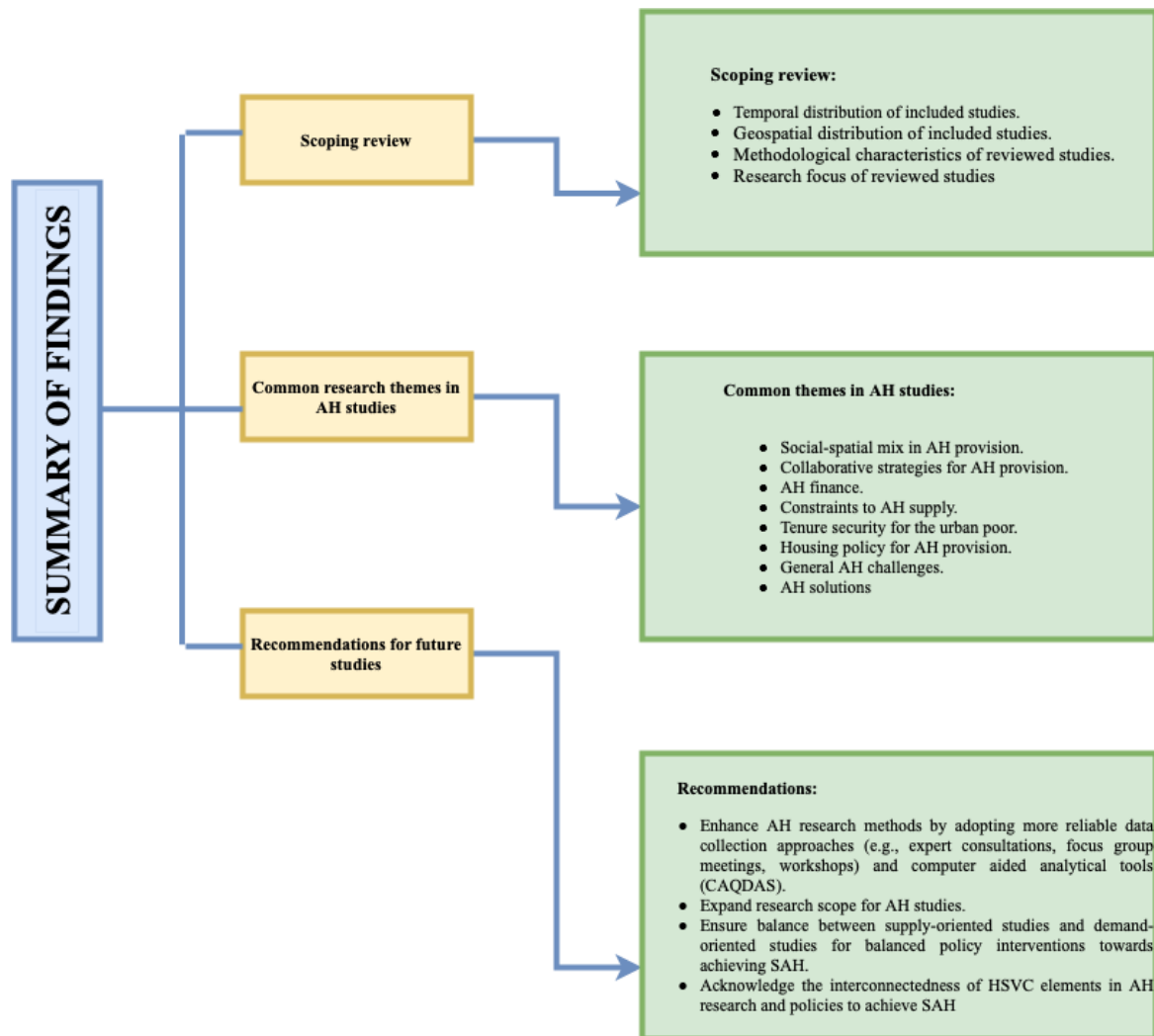


Figure 5. Summary of findings.

4.1. Overview of Reviewed Studies

The study corroborates literature that affordable housing for the urban poor is a general challenge across the world [37-41]. Also, the study confirms the severity of the affordable housing challenge in developing countries [39, 40, 42]. Study confirms that sustainable affordable housing is scanty among scholarly discussions in agreement with [43, 44] and overall number of studies on affordable housing suggests a need for more research attention on this topical issue, considering the continuous growth of urbanization across the world [11].

Multi-method designs were adopted by the reviewed studies and these comprised of literature reviews, case studies, questionnaire and interview surveys, consultations, focus group discussions, workshops, observation and mixed methods. The data analysis tools employed in the various studies included descriptive analysis, qualitative analysis (content or report analysis), statistical analysis, cluster analysis, simulation, and mixed method analysis (hybrid). Target audience for

the various studies included dwellers in informal settlements, estate managers, service workers, urban authorities, case studies, properties, key informants, engineers and property developers. Many studies are based on review of literature and published data while empirical studies remain rather limited. The results suggest that affordable housing is still a veritable research area and corroborate [43] that there is paucity of study on sustainable affordable housing.

Eight distinct affordable housing research themes were identified in this study, namely social-spatial mix in affordable housing provision, collaborative strategies for affordable housing provision, housing finance, constraints to affordable housing supply, tenure security, housing policy, general housing challenges and lastly, affordable housing solutions; discussed below.

1. Social-spatial mix in affordable housing provision

A section of the study focused on social-spatial mix which is gradually becoming a popular in affordable housing discussions across the world. Dohnke examined the possibility of achieving social-spatial mix in housing, identifying the prospects and limitations of social housing policy in Santiago de

Chile, and found an uneven social-spatial development leading to exclusion of the urban poor because of the dynamics of real estate investments and government housing policies in Chile [45]. The study argued that demand-based housing subsidies for the urban poor will consequent in a less socially mixed development where gentrification sets in, and the urban poor are displaced to outer-cities in alignment with Harvey's hypothesis as adduced in [45] that the urban poor lives where the market leaves them. Zhang buttressed this submission in a similar study in Beijing, China where job accessibility of dwellers in affordable housing to job locations through public transportation (trains and buses) was evaluated and discovered that the urban poor mostly depend on weak public transport systems which will usually prolong travel time of users [46]. The study discovered that recent affordable housing locations are farther from city centres than earlier ones, suggesting that recent affordable housing sites are mostly located in farther outer cities to the disadvantage of the residents in these locations, as job opportunities are mostly clustered in city centres.

In an article on law and inclusive urban development in cities, [47] explored urban policy in Asian-Pacific countries and opined that the major constraint to affordable housing provision for the urban poor is the lack of available legalized urban land at reasonable distances from job opportunities. The study examined best practices in international urban policies and discovered that inclusionary zoning and inclusionary housing as urban policies are better implemented during property market boom, land value capture (LVC) policy should be introduced concurrently to ensure that private developers payback for the positive externalities benefited from public investment, policies should be implemented based on geographical and municipal differences, private developers should incentivized by government into inclusionary housing development, the inclusionary housing/zoning strategies should be rooted in urban land and housing market processes and the processes should generally capture both efficiency and equity objectives.

Regarding social-spatial mix, [48] opined that the focus of housing suppliers on housing quantity with no considerations for accessibility of location, connectivity, and functionality of housing negatively impacts on residents' income-generating opportunities and socio-economic mobility. The study investigated how the poor in Barranquilla, Colombia transformed rigid land-use into an organic land-use as an informal response to unfavourable location of social housing. The dwellers of the examined social housing converted their housing to make room for income-generating activities consequent upon the far distance from city centres where most job opportunities are concentrated. The study advocated for an urgent revision of the strict zoning laws that control these government social housing into more flexible regulations that enable mixed land-uses in Latin America.

De Duren in a similar study investigated the rationale behind the urban poor's location in cities of Latin America from

the affordable housing developers' perspective and is of the opinion that it is unfair for housing policies to force the urban poor to choose between access to housing and access to income-generating opportunities of the urban centres, advocating that good affordable housing policies are inclusive of the urban poor [49]. The study demonstrated that cheaper land prices are not the reasons why developers prefer outer cities for affordable housing development, because the cheap land in peri-urban areas usually lack basic infrastructure which the developers will have to incur the costs of providing. The choice of these locations is rather due to the availability of larger land lots useful for construction of more housing units and the ease of land titling and approval processes. This implies that developers' choice of location is due to economies of scale and not land prices. The study argued that property market works to the tune of institutional provisions and concluded that housing problems should be examined from all necessary angles as one-sided analyses would usually result in incorrect suppositions on policy actions.

Similarly, [50] examined the housing crises in Fiji and argued that urban housing unaffordability are pronounced in Suva city areas in Fiji as a result of economies of scale and the limitations in Fiji's land tenure system. The study investigated the marginalization and displacement of the urban poor to outer cities and advanced some insightful policy-oriented recommendations such as levying wealth tax on emergent asset class like corporate realtors, increasing the allocation for public housing in the budget, increasing the annual subsidies for public housing to de-commodify affordable housing, the state making sure to monitor all projects to prevent housing inequality and the urgent need for legislating clauses that protect the rights of the urban poor to affordable housing. This study suggests a desperate need for more research in this direction as different countries have different policies that require adjustments if sustainable affordable housing (SAH) will be achieved for the urban poor across the world.

These are insightful solutions to affordable housing provision challenges but are mostly supply-oriented solutions and will not offer sustainable affordable housing if the challenges are not addressed from the demand perspective. Sustainable affordable housing solutions will consider both supply and demand-side subsidies. Spatial mismatch in cities often results from the common practice of addressing affordable housing challenges independently, for sustainable affordable housing provision to be achieved, housing challenges should not be tackled in isolation as these challenges are usually interdependent and inseparable. This gap could be addressed in future affordable housing studies, to inform stakeholders on how affordable housing research and policies can be balanced between demand and supply-oriented solutions towards sustainable affordable housing provision.

2. Collaborative strategies for affordable housing provision

Cutts examined the strategies of the National Land Commission for Social Housing (CNTH) and discussed how collaborative strategy between the state and the community en-

hanced housing provision in the intermediate city of Santa Fe in Argentina [51]. The study opined that through this collaborative strategy the CNTH makes land provision efforts and empowers the urban poor for self-managed housing creation, overcoming the challenges of the formal housing markets. The CNTH is an avenue through which the state also equips communities for self-managed housing provision and inculcates an improved technical and organizational capacities in the communities through the collaborative process. The study postulated that this approach can be a solution to housing shortages across the world and deserves to be further explored. This approach, however, should not be adopted verbatim in other countries as property markets in different countries respond to different peculiarities that must be factored in before the adopting any borrowed strategies.

In alignment with this study, [52] examined the contexts and processes of assisted community housing initiative in Dhaka, Bangladesh and highlighted how the housing condition of the urban poor was improved by harnessing the strengths of an assemblage of slum dwellers. The community was supported by a non-government organization (NGO), and this ameliorated their housing condition, implying that assisted community housing is an effective approach for sustainable affordable housing development in developing countries. The study advocated for policy interventions to support and enable NGO-community partnership as an approach towards sustainable affordable housing. The study findings are innovative and likely to be sustainable, as the approach is inclusive of the urban poor but requires a larger scale investigation to enhance the generalization of this finding and the adaptability in other regions of the world.

Yap analysed efforts made to enhance the housing condition of the urban poor in Bangkok, Thailand by the government, private organizations and other civil society organizations and argued that strategies that support community-based organizations such as Baan Mankong enable the communities for better negotiations and are therefore effective in land acquisition, tenure security and generally in improving the urban poor's housing condition [53]. However, the study established the strategy's limitation in inclusiveness, effectiveness, and sustainability. For instance, there are limitations in its effectiveness for the poorest urban poor and the newly arrived urban poor in need of housing. The study opined that Thailand is in urgent need of a national policy targeted at housing adequacy for all. This study is a great start to a research focus on housing adequacy in Thailand, future studies may investigate how the identified limitations can be eliminated towards sustainable affordable housing.

In a similar study, [54] examined community participation as a tool for affordable housing provision for the urban poor in India and argued that the idea of community participation is recently a popular discussion in literature. The study opined that the active involvement of affordable housing beneficiaries is essential to the success and sustainability of affordable housing provision. The study established that the Indian In-

stitute for Human Settlement and the Ministry of Housing and Urban Poverty Alleviation were able to accomplish Housing for All initiatives through participatory models. The study argued that most community participatory models are unsuccessful because it has differing meanings to both government and the community. Government employs agencies to conceive and map out the programme and then coax the community to participate; such approach is aimed at cost reduction and community acceptance, paying less attention to the core housing needs of the beneficiaries. Effective participatory approach will surpass just the inclusion of community labour and will include regeneration, where the community is empowered to be able to identify problems and solve it in the most suitable ways for their needs and capacities.

Jeetika Malik investigated the behaviour of occupants in urban poor households of Mumbai, India and how this behaviour of low-income earners influences their energy consumption and thermal comfort [55]. Findings established the challenges that are likely to surface when housing development schemes are not inclusive of the beneficiaries. The study highlighted three archetypes among the occupants- Indifferent Consumers, Considerate Savers and Conscious Conventionals; and established that thermal comfort and energy demand is a function of occupant factors in affordable housing and advocated that building designs should be occupant-centric with due considerations for their socio-economic characteristics, ability to adapt and their energy consumption requirements and habits. Similarly, [56] addressed the recently popular policies that enables the private housing markets to provide affordable housing through targeted subsidies by a detailed investigation of the housing policy in Chile. The study agreed to the success of this approach in affordable housing production but highlighted a major failure in that this strategy contributes to urban exclusion and limits inclusionary housing. Future research could consider this gap when embarking on affordable housing studies, to advocate for more inclusive housing policies for sustainable affordable housing provision.

3. Affordable housing finance

Housing finance is a key element of the housing supply value chain (HSVC) which is a major challenge to the urban poor across the world. It is a common theme in affordable housing discussions. [57] investigated the housing market situation, the available housing finance instruments, and the accessibility of the urban poor to finance instruments in Ghana towards the provision of alternative affordable housing finance strategies. The study revealed conventional mortgage finance to be too stringent for the urban poor to access due to high interest rates, high cost of down-payment and long repayment periods. To achieve sustainable affordable housing for the urban poor in Ghana, the study proposed a more practical spatial planning system, strategies to enhance the urban poor's access to housing microfinance and strategies for cheaper housing construction cost through community-based initiatives. These initiatives are forward-driven but are capturing only two of three major components of housing supply-

housing construction and housing finance. The strategies will be more sustainable if land acquisition as a major component of housing supply is also addressed concurrently with housing construction and housing finance strategies.

In another study in Ghana, [58] explored the nature and characteristics of non-conventional housing financing strategies in two informal settlements in Kumasi, Ghana and argued that financing urban informal housing in third world countries can be less complex if formal planning agencies are willing to consider non-conventional financing approaches as innovative, dynamic, and flexible responses of the urban poor to the difficult formal urban planning and housing financing requirements. The study advocated that formal planning and financing institutions should make efforts to understand the financing approaches of the urban poor to inform policies that are inclusive of the urban poor and considerate of their socio-economic conditions towards a realistic solution to sustainable affordable housing provision problems in agreement with [45, 48, 59] who examined social-spatial mix in urban centres.

Rahman examined different pathways of promoting affordable housing financing and improvements in Bangladesh and postulated that housing finance is a major housing challenge for the urban poor and there is an urgent need for alternative means of funding affordable housing [60]. The study demonstrated that the urban poor in Bangladesh use micro-credits for housing improvement, housing activities and for other livelihood supports on the one hand and group savings program supported by international agencies for housing development on the other hand. The research sampled and compared Gopalganj and Khulna cities of Bangladesh and proposed that the two systems of microfinance and group savings can be combined so that individual limitations are overcome and the strengths of both programs can be maximized. This insightful research is limited by scope, it is necessary to have more research works in this direction with wider scope for more robust contribution. Smets in an earlier study on housing finance opined that formal housing finance is consequent upon the mentality of the rich who are often at the helm of affairs and make policies that are unfavourable for the urban poor in India [61]. The study argued that the high-income class makes finance terms and conditions that commodifies low-income housing, meanwhile the urban poor build incrementally, suggesting that affordable housing finance should also be incremental financing. This is an insightful approach to affordable housing finance for the urban poor which should be investigated further to establish the relevance in the realities of today.

More recently, [62] investigated financial approaches that local government leaders and decision-makers can consider for affordable housing financing in their localities. Study opined that it is essential that districts have a robust understanding of the housing conditions within the district, and this should inform a realistic and pragmatic housing provision strategy for the municipality. The study successfully documented alternative financial strategies available to local gov-

ernments to achieve inclusive and sustainable urban development in their municipalities. This study certainly moved affordable housing finance discussion further and calls for further research on the adaptability of these alternative finance strategies in other climes. Also, it is realistic to tackle affordable housing supply challenges holistically, considering the three essential elements of land acquisition, housing finance and housing construction as these three elements function interdependently.

4. Constraints to affordable housing supply

Another theme common across affordable housing discussion is constraints and challenges of affordable housing provision as the challenge seems to have defied solutions for many years across the world [37]. In an early study, [63] examined the economic characteristics and approaches of lodging households in the mid-1990s which was an economically tough period accompanied with rapid urbanization in Zimbabwe. The study argued that despite the difficult situation of the urban poor in the face of economic hardship, government employed forceful eviction which heightened the plight of the urban poor through the Operation Restore Order initiative in 2005. The study is a good start in investigating the predicaments of the urban poor, future research could capitalize on these research findings to explore ways to overcome the prevalent affordable housing challenges of the urban poor in Zimbabwe.

Ram investigated what prevents the commercial developers from supplying affordable housing in India and discovered the constraints to be mainly associated with finance issues, availability of land, the bureaucracy in land approval processes [64]. The study demonstrated that private developers are willing and interested in affordable housing supply but require government support in policies that relieve these constraints. This is an insightful supply-side solution to affordable housing provision, however, may not be sustainable if not balanced with demand-side subsidies in consonance with [49]. Solutions proffered by addressing affordable housing challenges from the suppliers' perspective only without investigating the urban poor as target beneficiary to understand and accommodate their demands may not be sustainable. [65] explored the urban poor housing in Vietnam and suggested a paucity of study on understanding urban poor housing. The study highlighted the current challenges in finding a common ground for housing affordability and sustainability in Vietnam. This study is an insightful documentation of the housing situation of the urban poor in Vietnam as it captured empirical data that included responses from the urban poor; however, the study only documented the housing problems of the urban poor with no solutions proffered. Future research could explore ways to address the highlighted urban poor housing problems in Vietnam.

In response to the growing informality in cities of the global south despite many efforts at improving the situation, [37] examined the community land trusts (CLT) - an innovative bottom-up approach to affordable housing provision- as a

response to informality challenges in the global south. The strengths and limitations of this strategy were analysed, and practitioners and researchers alike were fortified with a framework through which this strategy can be employed to enhance housing situation in developing countries. This is insightful but there is an urgent need for more research in this direction to evaluate ways to enhance the strengths and lessen the identified weaknesses of this approach. Future research is encouraged to investigate this finding empirically, capturing a reasonable scope to enhance generalizability of findings.

Perera investigated housing affordability in a recent study and argued that housing affordability is beyond household income and housing cost [41]. The study advocated for housing affordability to be properly investigated and understood with the relational view of the world. Through an empirical study of West Midlands in England, the study affirms that housing affordability is beyond the intrinsic rental or housing prices and household income but also involves complex household motivations and how households' trade-off these motivations with their housing costs. Suggesting that considering housing affordability from the perspectives of housing cost and household income alone will result in incorrect conclusions and policy decisions. The study highlighted that increasing the volume of housing supply with the intention of crashing housing/rental prices by making supply outweigh demand will not be realistic in the 21st century market conditions. It is necessary for housing policies to recognize and incorporate the different dynamic housing needs and life aspirations of communities over time. The study establishes the relevance of inclusive governance and the urgent need for dynamic housing policies for sustainable affordable housing provision in a developed economy. In an article on the rent burden of the urban poor in America, [38] opined that the urban poor in America continues to get poorer while housing costs continue to rise. The consequences of this includes eviction of the urban poor, housing inequality and the urban poor devoting half of their income or more to housing costs. This establishes that affordable housing for the urban poor is also a problem in developed countries and requires more research attention.

Malik investigated informal housing challenges in Lahore, Pakistan and argued that uncontrolled urbanization and lack of accompanying affordable housing for the urban poor plague about all developing countries [39]. The study opined that the growth of informal settlements is a result of poor governance, disparity in infrastructure, land issues, social issues, limited community participation and vulnerable living conditions. [39] argued that informal settlements are heterogeneous in nature and must be examined individually to establish the solution that best fits the context. Though slums are different by location, there exists certain common elements across all slums such as low-income level of dwellers, proximity to city centres with income-generating opportunities, unhealthy living conditions among others. The study advocated that affordable housing challenges require an

in-depth empirical study of the living conditions of the urban poor for acceptable spatial and sequential resolutions. Sustainable affordable housing provision will require multifaceted approaches, multidisciplinary and interdisciplinary investigations. This study is a step in the right direction as it captured and analysed responses of the urban poor to inform inclusive policies, however, the study is limited to an investigation of challenges without specific solutions proffered to the housing challenges in Pakistan. There is an urgent need for future research to examine informal housing challenges with proactive solutions recommended for the identified challenges.

In neighbouring India, [66] analysed the adequacy and affordability of social housing for the urban poor in Chandigarh, India and opined that it is impossible to achieve sustainable development without ensuring that human settlements are sustainable. The research established that there are about 70 million slum dwellers in India with almost 2 million completely homeless. Findings in the study are that provisions of housing adequacy in the Indian housing policies are totally ignored in the sampled colonies, the youths and women are mostly unemployed, requiring an urgent policy intervention for urban regeneration. The study recommended that government should work to eliminate the identified gaps across the conception, planning and implementation of policies while NGOs are encouraged to partner with government to proactively address housing challenges in Chandigarh. This study is an insightful empirical analysis of informal settlements in Chandigarh, the need to document and proffer proactive solutions to the prevalent housing challenges across the world suggests that more research attention is required on housing matters.

Agarwal in a recent study reviewed the critical success factors for adequate affordable housing for the urban poor in India, by investigating the conflict between housing need and housing supply among the stakeholders of affordable housing [67]. Findings from the study revealed that the urban poor considers housing adequacy as much as, if not higher than housing cost. The factors of housing adequacy include but not limited to, proximity to source of income, operation costs of housing, maintenance costs of housing and other diverse expenses. For housing to be sustainable and affordable, these factors must be considered in housing provision. This study made tangible contribution to knowledge but largely based on literature review. Future studies are required to carry out in-depth empirical study to establish these findings, validate the pilot study findings to proffer proactive solutions to the challenge of housing inadequacy in India. The study successfully highlighted the critical success factors but ignored the ranking, future studies can rank these factors according to their level of criticality to the success of sustainable affordable housing in India.

5. Tenure security for the urban poor

Few of the included studies also discussed the security of tenure for the urban poor as a major concern to the achieve-

ment of sustainable affordable housing provision. In a case study research, [68] investigated the Bhashantek Rehabilitation Project (BRP) - an affordable housing project in Dhaka city of Bangladesh and argued that the outcome of the project would be inconsistent with its intentions to alleviate housing deficit in Dhaka. Based on research findings, the study advocated for tenement housing to be more affordable for the urban poor among other recommendations. Future research could examine a wider scope to eliminate the limitation of this study findings to make more robust research contribution. [69] investigated the utility derivable from multiformity of housing tenure arrangements for the urban poor in Kolkata, India and opined that despite the popularity of homeownership tenure arrangement in international housing policies, there is a growing majority opinion that other forms of housing tenure may benefit the urban poor more. The study demonstrated that leasing or renting favours new migrants and large households more than homeownership, suggesting that the cost of owning large housing is not affordable for the urban poor.

The study suggested that policies designed to enhance rent and lease for the urban poor housing can be an effective means of enhancing household wellbeing in India. These contributions are sagacious, however, for sustainable affordable housing provision, it is logical to supply housing with different types of tenure arrangements, so the urban poor can choose based on their income levels. Also, it is more realistic that longitudinal samples are tested to inform better housing policy decisions that incorporate changes in housing needs over time.

6. Housing policy for affordable housing provision

Way back in 1993, [25] examined the relationship between public policy and housing affordability for the urban poor in the city of Port Harcourt, Nigeria and established a gap in policy in that it was neither designed nor prepared for the rapid population increase that the city witnessed as a result of urbanization. This resulted in formation of squatter settlements as the urban poor could not afford housing provided by the formal private housing market, unfortunately population issues have only increased over the years with no proactive policy decisions to combat the problem. The study made insightful recommendations such as government enabling the informal housing markets, utilizing the already existent self-help housing strategies and lastly a collaboration between government, the communities, and other organizations to address housing affordability issues. Literature shows that many studies over the years have reiterated these submissions [51-53, 55], some forward-driven policies have been made without accompanying implementation over the years, government should make efforts to synchronize policymaking and policy enforcement.

Kigochie investigated how rehabilitation projects impact on home-based enterprises (HBEs) in informal settlements in Nairobi, Kenya and opined that housing unaffordability and unemployment are major problems of the urban poor in developing countries [42]. The study argued that affordable

housing policies without accompanying job creation policies will not work, suggesting that for housing to be sustainable and affordable, it is required that policies combine both housing provision and employment opportunities for the urban poor. The study sampled the Mathare 4A Housing Project which successfully adopted urban regeneration approaches by constructing new and upgrading old affordable housing, adjusting building codes, using cheaper indigenous building materials, and successfully enhanced existing HBEs, created jobs and improved the standards of living of the urban poor. This insightful study is a call for more empirical research on the urban poor, their activities, their peculiarities, and how concerted multidisciplinary efforts can be made to achieve sustainable affordable housing for the urban poor.

Mitlin examined housing and urban poverty by reviewing the ways to alleviate poverty in urban areas [70]. The study established how the urban poor improved their housing conditions in Goiania city of Brazil and highlighted the interrelationship between affordability, diversity, and inclusivity. The study argued that development cannot be equitable if it is not inclusive and advocated for a proper understanding of the activities and livelihood of the urban poor to inform strategies that will be appropriate for the housing needs of the urban poor. Literature shows that insightful and policy-oriented recommendations have been made but many countries are yet to make appropriate policy decisions or implement these policies where they have been made. There is an urgent need for continued empirical study on sustainable affordable housing for the urban poor until the housing situation of the urban poor across the world are significantly improved.

Kala investigated the impacts of land use regulations on urban form, the use of floor spaces and affordable housing provision in India and opined that there is need for land use controls to be relaxed to allow vertical development in cities [71]. The study argued that floor area ratio (FAR), if increased, will result in more land consumption by the urban poor as land prices will plummet and housing will consequently become more affordable. This is insightful; however, vertical development comes with demand for lifts to access upper floors, regular water supply among other services. These facilities run on electricity, suggesting that housing affordability may be jeopardized by cost of facilities and services. There is need for future research to explore ways to achieve this sustainably without compromising affordability. Kamath investigated new housing policies in India using the Bengaluru housing projects as case study and found that the policies only target inclusiveness and efficiency on paper, the outcomes are differing from policy intentions [72]. The study opined that the promise of security of tenure is probably the defeat of the Bengaluru housing strategy, the study advanced that stating policy decisions is not as important as having an articulated understanding of government practices and variations, as this determines the achievement or non-achievement of affordable housing provision.

Nandi reviewed urban governance, infrastructure chal-

allenges and general policy measures in India and highlighted challenges in governance that frustrates the successful execution of Indian housing reforms [22]. The study advocated for a decentralization of government to synchronize policy intentions and fulfilment. The study concluded that it is sustainable to plan the needs of the urban poor within urbanization management and not tackle their needs in isolation. Shrestha investigated housing issues in Nepal and argued along with most housing literature that housing the urban poor is a complex problem across the world [73]. The study surveyed Banshi Ghat- an informal settlement in Kathmandu city of Nepal and discovered that providing affordable housing for the urban poor requires a holistic approach with active collaborations of public organizations, private organizations, and the people. The study suggested an innovative conjunction of both public-private partnership and participatory approach to achieve sustainable affordable housing. This research calls for more research in this direction with wider scope to ensure more robust contribution, also this approach can be examined in other parts of the world to establish the effectiveness of such collaboration in sustainable affordable housing provision.

Todd explored the past, current and future challenges of Dar es Salaam city in Tanzania and opined that the dynamics of the former Tanzanian capital city may be affected by the total relocation of government offices to Dodoma- the present Tanzanian capital, notwithstanding, the city is projected to be a megacity by 2030 [74]. Findings demonstrated a major gap between policies and what is on ground regarding city planning and housing. The study recommended that for affordable housing and other city problems to be solved, government should make realistic plans for policy implementation and create databases that will enable future planning. These are steps in the right direction but for sustainable affordable housing to be provided, the urban poor in context should be investigated to inform policies that are inclusive of the urban poor's housing realities. In a recent study, [21] reviewed literature on housing policy in India and discovered that most literature focused on supply-side strategies for affordable housing provision with an apparent lacuna in demand-side strategies for affordable housing provision. Study also established that housing discussion in India focused on the emergence of housing markets and government's roles in enabling it with less attention on the philosophy that originated it. Findings from this study suggest an urgent need for a paradigm shift in research approaches to be more balanced and comprehensive, diligently considering the highlighted gaps in demand-oriented affordable housing solutions and understanding the fundamental principles of the Indian housing market such as commodification of housing among others.

7. General affordable housing challenges

A section of this review focused on general varying challenges that frustrate the achievement of sustainable affordable housing for the urban poor but cannot be captured under the already discussed themes. [75] examined the perception and

understanding of the urban poor in Istanbul, Turkey of the seismic hazard situation and how it affects them. The study corroborated literature that cities of developing nations are overpopulated due to urban poor immigrants looking for income-generating opportunities in the cities which results in the growth of informal settlements that offers affordable housing to the urban poor. The study established that the urban poor in Istanbul prefer self-built housing as they perceive it to be cheaper and safer than the commercially built housing by building contractors. This perception informs the urban poor to adopt innovative ways to minimize their hazard risks by living in informal settlements. This study demonstrated how the urban poor responds to hazard vulnerability and can inform proactive approaches to prevent a recurrence in other cities of the world. Future research can explore other cities to understand the perception of the urban poor of hazard vulnerability. More importantly, research should lead to proactive recommendations that will alleviate hazard vulnerability and all the negative externalities.

In a similar study, [76] investigated the exposure of informal settlements in India to monsoon rain hazards, arguing that informal settlements are significant contributor to the affordable housing stock in most developing economies. The study examined home flooding and home leaking as major consequences of monsoon rain and found that chances of exposure to flooding and leaking for household with higher income is relatively lower, houses built with temporary materials are more exposed to flood and houses made with better quality building materials are less exposed to leaking among other findings. The study argued that exposure to significant risk in informal settlements vary by income level, quality of building, housing location among others; advocating that disaster alleviation interventions should be targeted at the poorest urban poor while enhancing the provision of infrastructure and security of tenure to encourage permanent housing construction.

Gunter examined the informal settlements in Johannesburg, South Africa and argued that informal settlements emerge rapidly around the world as a response to unaffordability of housing for the urban poor dwelling in squalors [77]. The study found that despite the general belief that slum properties have no capital value, there is a running informal property market within informal settlements with properties transactions. The study moved housing discussion and philosophy further from slum housing being considered as 'dead capital' with no economic prospects to 'crisylida capital' that does not only hold value but has capacity for value creation. The study concluded that slum housing has potentials that can be utilized for wealth creation. This insightful and innovative finding calls for more research attention on slum housing across the world towards the achievement of sustainable development goals of poverty elimination and sustainable affordable housing for the urban poor. [78] examined urban development, its impact on exclusion of the poor in India and opined that the urban divide can be summarized into the dynamics, charac-

teristics, and the approaches of bridging the divide. The study argued that pairing urbanization and exclusion of the poor will wrongly suggest that urbanization causes poverty which in real sense is not absolute in Indian states as there was evidence of highly urbanized states with low frequency of poverty and high prevalence of poverty in some less urbanized states. The study advanced that exclusion may be understating the situation of the poor in many countries as the situation is rather that of exploitation of the poor. Further, the study argued that the urban poor are not necessarily all slum dwellers but are mostly slum dwellers. In closing, [78] opined that urban poverty originated from inadequacies in urbanization processes in India and other countries. The contributions of this study are insightful, but the generalization of findings may require further studies in other parts of the world for verification.

Boyd investigated the security surveillance and how it impacts on low-income and supportive homes for the mentally challenged and people with addictions in Vancouver, Canada [27]. The study adopted observation methodology to capture unadulterated data which showed physical surveillance technologies, use of force, police presence and staff surveillance. Study concluded that the excessive focus on security exposes the supportive housing to social control, limiting the rights of the occupiers of the affordable housing. [79] assessed urban park accessibility and established a spatial inequality among various socio-economic class in their accessibility to urban parks in Nanjing, China. Study findings show that urban redevelopment projects through the mass affordable housing projects displace the urban poor out of inner cities to locations in outer cities, limiting their access to urban parks and green facilities. Social equity is an innovative contribution to affordable housing discussion which prior had mostly focused on household income, transportation cost, housing accessibility and housing equality. This calls for more research on social equity across developed and developing economies to inform policies that will incorporate social equity into sustainable affordable housing provision approaches.

Borsuk examined the implications of dispossession on gender and the dynamic nature of women's poverty due to redevelopment projects in less formal settlements [80]. The study adopted the Kadifekale Urban Transformation Project in Turkey as case study and argued that when transition from informal to formal property causes gender, racial and marriage related issues in the land market, it is no longer empowering women's right. Such redevelopment projects expose women to dispossession and displacement to outer cities; limiting their access to income-generating opportunities, city services, and enhancing social exclusion [80]. This calls for more research focus in this direction to address the paucity of study on the subject matter, towards the achievement of inclusive and sustainable urban development across the world. The highlighted challenges in this section, though varying, they are useful to inform holistic approaches to future re-

search directions and policy formation for sustainable affordable housing.

8. Affordable housing solutions

Stewart investigated how community self-help has impacted on sustainable affordable housing for the urban poor in Latin America and opined that realistic housing solution for the urban poor in developed world is dissimilar from solutions suitable for developing world as they have different welfare control and poverty levels [6]. The study advocated that housing situation in developing countries require innovative responses to ensure attainability, affordability, and sustainability. Study established that effective housing policies will support affordable housing provision approaches conceived by the poor for themselves with appropriate government aid, advocating that the poor across the world have achieved more affordable housing provision for themselves than government have or are willing to provide. [81] discussed the lessons derivable from housing and development strategies in five countries of Central America funded by the Swedish International Development Co-operation Agency (SIDA) over the past fifteen years (1990 – 2005) and highlighted the approaches that effectively enhanced housing situations of the urban poor such as housing policies that are inclusive of the housing needs of the urban poor, integrated interventions and collective participation of multiple players, use of transparent subsidies to target demand-side challenges, use of revolving funds among others. The study made insightful recommendations that these highlighted effective mechanisms can be adapted in other regions to enhance affordable housing provision for the urban poor.

Dhote analysed the social impacts of development interventions on communities housing the urban poor in India and put forward that social impact assessment (SIA) should have a methodology that includes the beneficiaries, the policy makers, government, and users; to have an inclusive framework with qualitative participation that is quantifiable [82]. Findings from this study are useful for future research in India and other parts of the world. [83] examined the housing provision challenge in Nigeria and the constraint in affordable housing provision for the low-income earners and argued that for the country to overcome the perplexing affordable housing challenge, there is an urgent need for good governance as well as enhanced land and credit accessibility. The study advocated for use of indigenous building materials for building construction and the use of technology to enable mass housing production to crash construction cost by at least 60 percent. This is insightful and calls for more research on the availability and affordability of technology for mass housing production in Nigeria.

Gurran compared affordable housing policies in Australia and England and argued that both countries have a common history as well as an aim of housing improvement for the urban poor [84]. The study opined that England housing policies informed Australian housing policies until the Town and Country Planning Act of 1947 when the policies became

divergent. Housing provision in the United Kingdom is through local authorities with dominant social rental housing while on the contrary, housing in Australia is mostly through the private sector. The study postulated that for effective affordable housing provision, first, housing and urban policies must be designed to support it, secondly, intermediate housing should be provided as it is preferred to social rented housing by the majority, finally, the importance of political will cannot be overemphasized if the housing needs of the low-income earners will be addressed.

In a further study, [85] compared affordable housing policies across England, Australia, and New Zealand by examining each country's strategies based on the historical, socio-cultural, governance and urban planning structure. The study affirmed that though the affordable housing planning and delivery of these countries have a similar principle (early British town planning legislation), the urban regulation, property rights and housing provision approaches in each country have underlying differences. The study established that these differences in housing policies impact on the access to new affordable homes in the face of surging land values. Further, [85] opined that effective affordable housing planning and delivery is a function of market peculiarities, government devotion, mature housing sector and a consistent and well-articulated policy formulation and implementation. The study concluded that affordable housing is still an urgent need in all three countries and an exchange or transfer of policies and ideas may make significant impact. There is need for future research to investigate the possibilities, modalities, and success of the recommended transfer of housing policies.

Amin reviewed literature on housing policy and other housing issues in Kuala Lumpur, Malaysia and opined that it is essential for housing to be adequately comfortable for its users [86]. The study suggests that most low-income housing in Malaysia may be deficient in design which impacts on users' satisfaction. The review advocated that housing design directly impacts on users' satisfaction, thus, important elements such as safety, privacy, space arrangement, layout planning, local climate, culture, and social integration should be factored into housing design. For housing to be sustainable and affordable, cultural values, local weather among other things should be incorporated into housing as housing is beyond just a living space. Housing should provide the people's housing need and provide occupant's satisfaction and perception, for a comfortable living environment.

Feather analysed an effective supply-based affordable housing provision strategy in Korea to highlight the lessons derivable and best practices that can inform other parts of the world [87]. The study investigated The Two Million Housing Drive project in Korea and established that the program was effective in enhancing the urban poor's access to affordable housing through industrialized mass housing initiative and subsequently supported demand-side housing remedies such as home loan subsidization and others. The study advocated for policies that integrate both supply-side and demand-side

solutions to enable the achievement of sustainable affordable housing for the urban poor and vulnerable. These are proactive solutions clustered in this study that are useful for policy decisions among practitioners and to channel future discourse in sustainable affordable housing among researchers.

4.2. Literature Gap and Recommendations for Future Studies: Research and Practice

The study findings exposed some gaps in literature which can be grouped into methodological, scope and conceptual gaps. These are discussed in this section to inform practice and illuminate paths for future sustainable affordable housing studies.

It was discovered that most previous studies adopted interviews, questionnaires, and observation as data collection methods, with very few studies engaging other important data collection and validation approaches like focus group meetings, consultation of experts, professionals, and experienced respondents as well as workshops. This limits the validity and reliability of research findings because data sourced from experts or professionals enhances research output [28]. Reviewed studies mostly employed descriptive analysis, statistical analysis, and mixed methods, while ignoring computerized analytical tools (CAQDAS) like NVivo which would have concretized the validity of research results. These are methodological gaps that future studies could address by making more room for consultations, focus group discussions and workshops in affordable housing studies as well as employing CAQDAS to ensure validity and reliability of research findings. Also, study found that previous studies are limited in terms of scope as most studies sampled only one settlement or case study. This limits generalizability and comparative relevance of study findings. Future affordable housing studies could engage more settlements to aid comparativeness, generalizability and make contributions to knowledge more robust. Funding agencies are also encouraged to enhance financial support for affordable housing research in the future as this may be the reason for the aforementioned gaps.

Study findings reveal that most affordable housing research address housing challenge from supply perspective leading supply-side solutions to prevalent housing problems. In as much as this is significant to achieving affordable housing for the urban poor, it is not proactive to tackle a multifaceted challenge as affordable housing from a singular approach. To arrive at sustainable affordable housing provision research must balance between demand and supply-side investigations. Similarly, policy decisions should include both demand and supply-side interventions in consonance with [87]. Further, this review establishes that housing supply value chain is usually not factored into affordable housing studies. HSVC is the underlying factor for effective housing provision with land acquisition, housing finance and housing construction as key elements. These elements are interconnected and function

interdependently in reality. There is an urgent need for a paradigm shift in affordable housing discussion, research, and policy decisions to acknowledge the interconnectedness of HSVC elements to ensure the achievement of sustainable affordable housing provision across the world.

4.3. Strengths and Limitations of This Review

This study employed a meticulous, thorough, and transparent approaches throughout the review process. The study was guided by established scoping review protocols, also to ensure large coverage of reliable and peer-reviewed data, Scopus and Web of science databases were used. These databases have large coverage of peer-reviewed academic articles and are effective for literature review [17, 18]. The Endnote reference manager was used to ensure proper organization of documents and citations throughout the process.

This study, like most scoping reviews cannot guarantee the quality of included studies [13, 15]. Thus, this scoping review cannot be responsible for gaps related to the quality of included studies. This review was conducted based on pre-determined criteria, implying that there is a possibility of some excluded studies been relevant to the subject topic. Also, there were no scoping review experts consulted for this study. Future reviews should consider involving experts in study selection processes for scoping and systematic reviews. Last, certain keywords were used for literature search which might not capture the entire research area. Future reviews should consider including more keywords.

5. Conclusions

This study is first to review the existing studies on affordable housing for the urban poor across different countries of the world to highlight knowledge gaps and identify research trends that can inform future research directions. This scoping review provides a picture of scholarly discussions on affordable housing provision for the urban poor. Study findings show that there are gaps in terms of concepts, methodologies, and scope calling for more research attention on this challenging area of affordable housing provision; and more importantly sustainable affordable housing for the urban poor.

Systematic reviews are insightful but based on study findings, it is recommended that more attention is given to empirical studies for more pragmatic solutions. Findings from this study are useful to inform practice and policy decisions towards sustainable affordable housing provision for the urban poor.

List of Abbreviations

AH	Affordable Housing
SDG	Sustainable Development Goal
SAH	Sustainable Affordable Housing

WoS	Web of Science
AMAP	Autonativ Electronic Navigation Map
CAQDAS	Computer Aided Qualitative Data Analysis System
LVC	Land Value Capture
CNTH	National Land Commission for Social Housing
NGO	Non-Government Organization
HSVC	Housing Supply Value Chain
CLT	Community Land Trusts
BRP	Bhashantek Rehabilitation Project
HBEs	Home-Based Enterprises
SIDA	Swedish International Development Co-operation Agency
SIA	Social Impact Assessment

Conflicts of Interest

The authors declare no conflicts of interest.

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