

Systematic Review

The Role of Public-Private Partnerships in Housing as a Potential Contributor to Sustainable Cities and Communities: A Systematic Review

Terence Fell ^{1,*} and Johanna Mattsson ^{2,3,4} 

¹ Division of Political Science and Economy, Mälardalen University, 72123 Västerås, Sweden

² Division of Industrial Economics and Organization, Mälardalen University, 72123 Västerås, Sweden; jomt@du.se

³ Division of Business Administration and Management, Dalarna University, 79188 Falun, Sweden

⁴ The Future-Proof Cities Graduate School, 80176 Gävle, Sweden

* Correspondence: Terence.fell@mdh.se; Tel.: +46-736620811

Abstract: Today cities face the increasing negative consequences of the unsustainable course society is set on. Climate change, biodiversity loss and increasing spatial segregation are testament to this. The effects of these issues often exceed the coping capacity of individual urban housing developers. Thus, an antidote to the current neoliberal trend must be found in collaborations such as public-private partnerships (PPP). Here the shortcomings and limitations of PPP and its potential ability to solve the problem of unsustainable urban development are investigated. Using the Doughnut Economics (DE) model as a general guide, a systematic literature review is conducted. The results reveal evidence that PPPs are unjust and exclude local actors from collaborations. Hence, resident participation and inclusion is considered the best strategy for PPP to evolve as a future guarantor of the sustainable city. First, however, major differences in the character of issues that connect the global model of sustainability to the harsh reality of the local context need to be addressed. This gap concerns the city's social foundation and ecological ceiling. The DE model applied herein is an excellent tool to test the scope and depth of local collaborations such as PPPs and reflect on international treaties such as SDGs.

Keywords: public-private partnership; Nordic; governance; housing; future proof cities; sustainability; urban development; Doughnut Economics; sustainable city



Citation: Fell, T.; Mattsson, J. The Role of Public-Private Partnerships in Housing as a Potential Contributor to Sustainable Cities and Communities: A Systematic Review. *Sustainability* **2021**, *13*, 7783. <https://doi.org/10.3390/su13147783>

Academic Editor: Ingemar Elander

Received: 15 June 2021

Accepted: 10 July 2021

Published: 12 July 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Urban housing developers in today's cities need to better understand the relationship between ecological and social sustainability and Public-Private Partnership (PPP), concerning the latter's potential to realize future national policies and international treaties. Cities today are at risk of facing the increasing negative consequences of climate change while they themselves are responsible for 75% of the world's emissions due to excessive energy use [1]. This well-documented problematic is being exacerbated by the inequity of aggressive neoliberal processes such as gentrification and subsequent displacement, fuelling what best can be described as an out-of-control spatial segregation [2–4]. As a double-edged problem, sustainability includes several aspects of urban development in the city. First, on the ecological side of the sustainability coin, challenges, such as energy poverty, bad air quality, noise pollution, waste, excessive consumption, irresponsible land (ab)use, etc., need to be addressed [2–4]. Second, flipping the sustainability coin, the city's social foundation is threatened by a mix of urban processes such as housing, education, health, well-being, social services, governance, cultural heritages, safety and employment [2,3,5]. The point to be made in this review is that these listed challenges to the sustainability of future cities, here defined from indicators and measurements used by scholars like Tanguay et al. [2],

Chan [3], Steffen et al. [4], Raworth [5], often exceed the coping capacity of individual urban developers such as private and public companies, including municipalities [6,7]. Therefore, the city's usual combination of influential stakeholders needs to tackle this complex dual problem of sustainable urban development when they enter collaborations such as PPP, particularly concerning housing development, the focus here [7–9].

Since it is both malleable and “depict[s] the two boundaries—social and ecological—that together encompass a safe and just space for humanity” [5] (p. 48), the Doughnut Economics (DE) model (Figure 1) is one way to either identify the issues that constitute the aforementioned connection (the bridge), or the issues that are missing (the gap). The systematic literature review is not just a way to translate the DE model from the global to the local level of analysis; it also elucidates the strengths and weaknesses of the connection between sustainability and PPP.

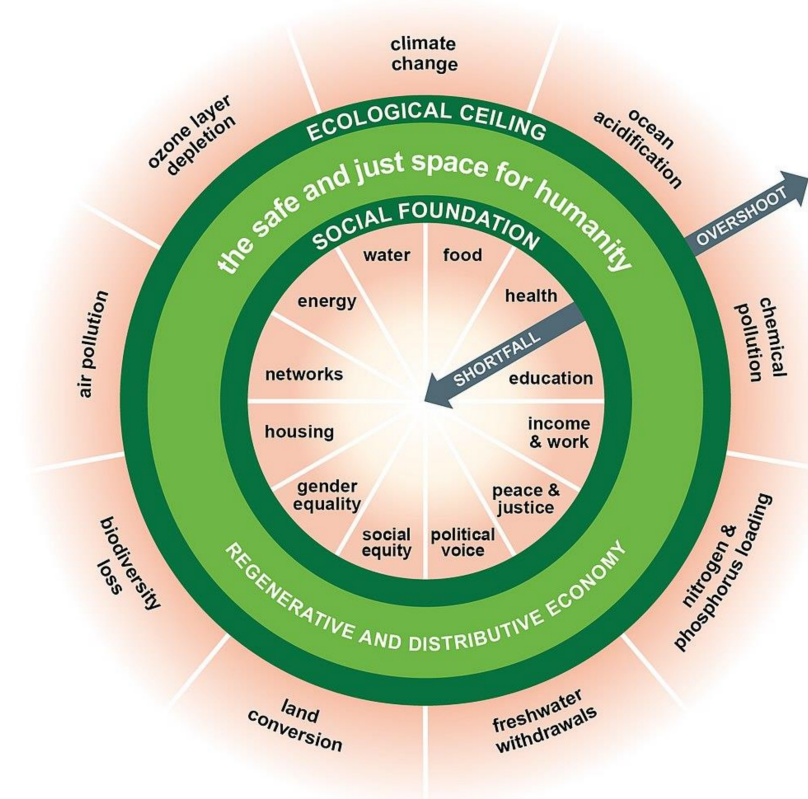


Figure 1. The Doughnut Economics model, reprinted from [5], Lancet Planetary Health, 2017.

The DE model has twelve social indicators derived from internationally agreed minimum standards for human wellbeing such as the Sustainable Development Goals (SDGs) established in 2015 [5]. The nine ecological indicators refer to the Planetary Boundaries (PBs) developed by Rockström et al. [10] and Steffen et al. [4]. If one of these critical processes that constitutes a PB is overshoot, irreversible changes in the Earth's system are inevitable [4,10]. As mentioned, the main cause of detrimental social development and degradation of PBs originates in cities [11]. This, and the fact that it is used in multiple cities in their transition toward sustainability, for instance, Amsterdam has become a famous example [12], is another reason for choosing the DE model. The DE-model has been adopted by Luukkanen, Vehmas, and Kaivo-Oja [13]; Roy, Basu, and Dong [14]; and Saunders and Luukkanen [15], as a first attempt to develop a method that can be used to compare countries and regions. However, in the application of the DE model herein the authors contribute to this international research by determining the actual scope and characteristics of sustainability efforts in collaborations such as PPPs and by applying it as

a broad and new method to guide literature reviews that focus on similar collaborations in local contexts such as municipalities.

Falling partly within the parameters of the UN's sustainable development goal (SDG) 11 to make cities and human settlements inclusive, safe, resilient, and sustainable [2,3], PPP is a recent and growing form of collaboration that to date bridges gaps in infrastructure between essential city services and utilities such as transport, health care, and energy supply [16]. In a literature review of PPP, Hodge and Greve [17] investigated the purpose of PPP and found it to be multifarious and open to interpretation. That is, it can be viewed as everything from a new chapter in privatization to an attempt to measure performance in public sector services. Since the goals of PPP apparently vary, so too does its definition. For this reason, PPP is initially defined broadly as a partnership between the local government (municipality), its administration, and private housing developers [18].

The literature review is also an opportunity to investigate the extent of the gap between studies that focus on PPP, on the one hand [19–25], and studies that focus on sustainability, on the other [4,5,10,11]. Although only a very small proportion (3–4%) of hundreds of articles were written between 2015 and 2021, they can still be used to determine the anatomy of the connection between the PPP in the Nordic housing context and sustainability, the focus of this article. Most international literature today on partnership between public and private actors is either focused on how to improve the partnership per se, often by identifying critical success factors [19–22,25–27] or how it can better manage risk [23,24,28]. Moreover, most of the literature on PPP and sustainability either focuses on countries outside of the Nordic context (see [29–32]), or on sectors other than housing such as waste management, [33], water management [34], and transport [35]. Thus, this systematic literature review is a contribution to this literature and is a first step in deepening the current understanding of the role of PPP as a potential contributor to sustainable development in cities in the Nordic context.

In retrospect, the 25 studies in the review where PPP has been coupled with sustainability in the Nordic housing context reveal criticism toward this kind of collaboration [36–38]. With this in mind, the evidence suggests that, in its present form, PPP enables an asymmetrical power relationship between the municipality and the private sector, on the one hand, and residents, on the other [39]. To illustrate from a Swedish case, in one of Gothenburg's urban frontier neighbourhoods, the Gustaf Dalén neighbourhood, residents and property owners were shown to have no influence over a PPP's plans to redevelop the area and were subsequently forced out [40]. The authors are not discouraged by this example of unsustainable housing development. On the contrary, from this criticism, it is apparent that PPP has the potential to improve the future sustainability of the city's socio-ecological context. This justifies a closer review of the literature to connect the dots between the different issues that traverse the apparent PPP-sustainability gap.

From the scattered body of knowledge concerning PPP, a new understanding of its potential role in facilitating a transition toward a more sustainable housing development in the Nordic context is possible. The authors endeavour therefore to identify, with the support of the DE model, what is missing from the social and the ecological efforts of the current PPP that can be utilized to create a steppingstone in strengthening its future potential. Continuing from previous work on the DE model, the approach applied herein is a normative one, that is, it is designed to identify the shortcomings and limitations of PPP in order to evaluate its potential as a crucial and essential keystone in the sustainable foundation of housing development in the Nordic city context [39,41].

Since collaboration is the norm for current policy implementation, PPP is in a better position than individual urban developers, but not yet sufficient, to bring about a more sustainable housing development [42]. Thus, the need to examine and re-evaluate the PPP is clear. The purpose of this critical literature review is to determine if and how the PPP can achieve a sustainable urban renewal of the future city that appeals to its communities (SDG 11). To this end, it is important to consider how the character of the issues in the DE model change when traversing the global-local divide. While simultaneously exposing

their strengths and weaknesses, it is also necessary to identify which of the issues that currently connect the PPP to sustainable development (the bridge), and which issues have the potential to do so (the gap). This is done by applying a novel approach, which is carrying out a systematic literature of PPP in housing development in the local Nordic context to reveal the arguments and themes intrinsic to each concerned issue in the DE model, ultimately augmenting it.

2. Methods

2.1. Systematic Literature Review

A systematic literature review seeks to summarize prior work, extend theories, and evaluate a body of work with a critical lens [43]. Therefore, to build on and advance this theoretical understanding of achieving sustainable housing development, a literature review of a limited body of research that focuses on PPP and current housing development in the Nordic context is conducted. The literature review's protocol is based on a pre-defined structure, intrinsic to the stepwise approach characteristic of the Preferred Reporting Items for Systematic literature reviews and Meta-Analysis (PRISMA) statement [44]. This method was chosen for three reasons. First, it allows an interpretation of the potential role of PPP in housing development in the literature from the perspectives of social and ecological sustainability. Second, it also allows the authors to expose the gaps that can be filled by the PPP. Thus, the PRISMA statements support the research when reporting from the literature on housing development in the Nordic context (see [45] for a similar approach). Third, concerning the issues of reliability and validity, the systematic literature review underpinned by the PRISMA statement ensures reproducibility and replicability of the study [43,46].

2.1.1. Search Strategy in Identification Phase

Sustainability and urban development are two research fields that are interconnected and thus known for being multidisciplinary. In the coming search for relevant knowledge, the authors therefore chose three widely recognized, high quality, and multidisciplinary databases Web of Science Core Collection and Scopus. The search was conducted in March 2021. Keywords and Boolean operators were combined to establish the search for literature. These are "Public Private Collaboration" OR "Public Private Partnership" OR "Governance" AND "urban" OR "housing" OR "cit*" OR "neighbourhood" OR "communit*" AND "Sweden" OR "Nordic" OR "Denmark" OR "Norway" OR "Finland" OR "Iceland". The search was limited to only peer-reviewed scientific journal articles written in English. Since the potential role of PPP is investigated, only articles from the period 2015–2021 were included. In addition, one record was included from previously identified articles. This resulted in 683 identified records, as demonstrated in Figure 2. The main reason for choosing the timeframe 2015–2021 has to do with the fact that the context of the political landscape is rapidly changing. One major change in the political landscape in Nordic countries such as the old welfare state of Sweden is the emergence of neoliberal politics and policies in the late 1990s [47]. The selected timeframe captures the effects of this transformation such as spatial segregation and displacement as they continue to worsen considerably [48]. This ideological transformation, its recent effects combined with an acute need to combat climate change, paints an accurate picture of the double-edged sustainability problematic within which PPPs now operate.

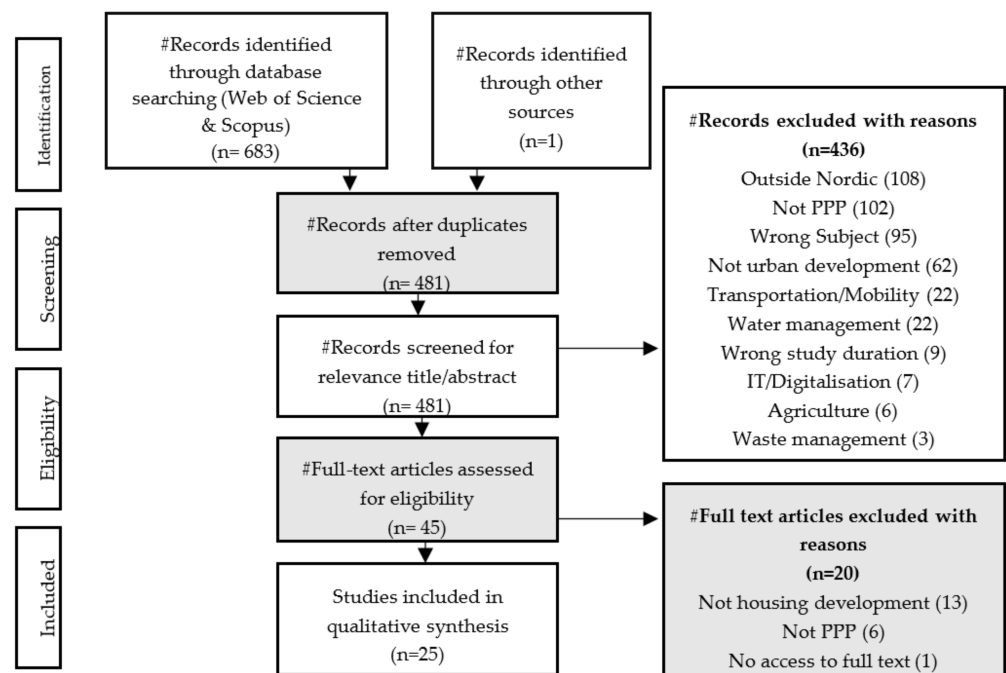


Figure 2. PRISMA statement flow diagram for PPP and urban (housing) development, reprinted from [44], Systematic Reviews, 2015.

2.1.2. Exclusion and Inclusion Criteria in Screening and Eligibility Phase

The retrieved articles were organized in the software Rayyan.ai [49]. In Rayyan, duplicates were removed, and the title/abstracts were screened for relevance. The inclusion criteria in the screening were: Nordic cases (Nordic cases combined with cases outside the Nordic context were excluded) on the topic urban development and PPP. At this juncture, the search was widened by using urban development instead of housing development in order to get a complete picture of the field. In addition, papers on the topic of urban development and/or PPP but concerning a specific discipline not relevant for the review were excluded. For instance, excluded disciplines were water management, waste management, transportation, agriculture, etc. Based on this screening, a refined selection of 45 papers were assessed for eligibility. In the eligibility assessment, one paper was excluded because of difficulty in gaining access to the full text. At this later stage, the authors also narrowed the inclusion criteria to exclude papers that did not combine housing development and PPP. This resulted in a final number of 25 articles to review. It is noteworthy that only 3.6% of all articles in the search pertain to both the PPP and housing development, revealing a narrow connection and probable major gap between the fields of collaboration and urban studies.

2.2. Content Analysis

The content analysis was divided into two phases. Based on the 25 retrieved articles, the first phase started with a screening of the abstracts to find and conceptualize the content of the articles with regards to the issues that constitute the DE model [4,5]. A number of initial themes emerged from common arguments that are used to describe similar phenomena. For example, “access” is a theme found to be intrinsic to the social equity issue and derived herein from the argumentation underpinning phenomena such as “access to urban green space” [50] and “access to affordable housing” [51,52]. In the second phase, by reading the full text of each article in a careful manner [53], the authors reviewed the themes and arguments and then added them with the relevant sources to each issue in table form. In the review of the articles, the authors strived to separate the researcher(s) from the object of analysis. For instance, the themes identified represent what is mentioned in the articles as the focal points in today’s housing development and PPP in

relation to sustainability. Critical arguments represent the recommendation for the future, its potential, by the researchers in the reviewed articles.

Finally, combining the DE model with articles that critically assess PPP in housing development allows researchers to quickly identify issues that transcend the global-local divide. Those issues that are addressed more frequently are those assumed to be important and, thus, attract most criticism. From this, the shortcomings and potential of local collaborations such as PPP can be identified in relation to any of the UN's SDGs, in this case SDG 11. Furthermore, the arguments put forward by the authors of the articles and sorted into a number of themes reflect on the concerned issues in the DE model. In this manner, it is possible to determine the anatomy of the connection between PPP and sustainability and the extent of the gap that it bridges.

3. Results

The first result is that the authors' reading of the literature that combines the PPP and housing development (see Table 1) found that only seven of the 21 issues touched on by the DE model are covered by the reviewed research. The identified issues are social equity, political voice, justice, social networks, climate change, land conversion, and biodiversity. The 14 issues that are not mentioned in the literature are therefore not included in the results, but some (or all) of these will be reflected on in the discussion. The seven issues are associated with some shortcomings that characterize the PPP and, from the authors' point of view, hamper its ability to achieve sustainability in current Nordic housing development. Four of these connect with social sustainability and two with ecological sustainability, as defined by Raworth [5] (Table 1). Focusing on these issues will bring the PPP closer to achieving SDG 11, expanding beyond what is acceptable within the parameters of economic growth. Just because an issue such as gender equality is not mentioned in the review does not mean that the PPP has already achieved this goal. On the contrary, it is most likely a sign that this issue has not yet reached the drawing board of the PPP. Table 1 reveals the severity of each issue in relation to how many articles, that is, researchers identify it as a problem.

Table 1. The focus of criticism directed at the PPP in current research in relation to the DE model.

Study	Social Sustainability				Ecological Sustainability		Sum
	Equity	Political Voice	Justice	Social Network	Climate Change	Land Conversion and Biodiversity	
Olsson, Brunner, Nordin, and Hansson 2020 [50]	x	x	x	x	x	x	6
Borgström 2019 [54]				x			1
Sørensen & Torfing 2020 [55]		x	x	x	x		3
Bonow and Normark, 2018 [56]		x		x		x	3
Glaas et al. 2019 [57]				x	x	x	3
Hyötyläinen and Haila 2018 [51]	x	x	x			x	4
Lidegaard, Nuccio, and Bille, 2018 [58]	x		x				2
Fors, Nielsen, Konijnendijk, van den Bosch, Jansson 2018 [59]		x		x		x	3
Elander and Gustavsson 2019 [60]			x	x	x		3
Candel, Karrbom Gustavsson, and Eriksson 2021 [61]			x	x			2
Hermelin and Jonsson 2020 [62]			x	x			2
Noring, Struthers, and Grydehøj 2020 [52]	x		x				2

Table 1. Cont.

Study	Social Sustainability			Ecological Sustainability		Sum	
	Equity	Political Voice	Justice	Social Network	Climate Change		Land Conversion and Biodiversity
Puustinen and Viitanen 2015 [63]	x		x	x			3
Valli and Hammami 2021 [64]	x		x				2
la Cour and Andersen 2016 [65]			x				1
Smedby and Quitzau 2016 [66]				x	x		2
Berglund-Snoddgrass, Högström, Fjellfeldt, and Markström 2021 [67]	x		x				2
Juhola, Seppälä, and Klein 2020 [68]		x		x	x		3
Gohari, Baer, Nielsen, Gilcher, and Situmorang 2020 [69]		x		x	x		3
Noring 2019 [70]	x		x		x		3
Thörn and Holgersson 2016 [40]	x		x				2
Schultz Larsen and Nagel Delica 2021 [71]	x		x	x			3
Andersen, Ander, and Skrede 2020 [72]	x		x	x			3
Richner and Olesen 2019 [73]	x		x	x			3
Storbjörk, Hjerpe, and Glaas 2019 [74]			x	x	x		3
Sum	12	7	17	17	9	5	67

What is striking is the asymmetry in the focus of criticism directed at the PPP's housing development. Only 21% of the issues touched on by the literature in review pertain to ecological sustainability (Table 1), but once again not necessarily implying that PPP has achieved these goals. The second result is that PPPs in this study are always being criticized and mostly for their lack of social sustainability, undermining the social foundation of the future city and its communities.

What is also striking, and the third result, is the fact that the two main issues, justice and social networks, touched on by most researchers in the study are those not covered by SDG 11. However, it is important to note that the PPP does not need to be limited by SDG 11 and its subgoals. In fact, PPPs will need to address all the SDGs if they are to tackle the challenges of sustainability in a holistic manner. With the DE model in mind, PPP can in theory transcend the boundary of economic growth by being just and by broadening its social networks (Table 2).

Table 2. Shortcomings of the PPP and its potential effect on SDG 11.

Contentious Issues	Realm	Subgoals SDG 11
1. Social equity (3 themes; 8 arguments)	Social	<i>“Access to adequate, safe and affordable housing and basic services as well as inclusive green and public spaces”</i>
2. Political voice (2 themes; 6 arguments)		
3. Justice (3 themes; 11 arguments)		
4. Social networks (2 themes; 8 arguments)	Ecological	<i>“Policies and plans towards inclusion, resource efficiency, mitigation, adaptation and resilience to disasters”</i>
5. Climate change (3 themes; 9 arguments)		
6. Biodiversity and Land Conversion (3 themes; 5 arguments)		
		<i>“Efforts to protect and safeguard the world's natural heritage”</i>

As it stands, the subgoals of SDG 11 can be sorted into the realms of both sustainability's social and ecological foundation (Table 2). This implies that the PPP can only contribute to the attainment of the SDG 11 concerning social equity, political voice, climate change, and land conversion and biodiversity. Subsequently, this confines the plethora of identified arguments to the number of issues identified in the review of PPP and urban and housing development (see Sections 3.1 and 3.2 below). However, critics of PPP want it to push beyond the goals of SDG 11, particularly concerning the issues of justice and social networks (as in Table 2). In essence, a new gap in knowledge becomes apparent in a comparison of the DE-model and the subgoals of SDG 11, but only in relation to the city and its communities. The authors are aware that other SDGs deal with justice and social networks in relation to other issues, but not directly in relation to the city and its communities.

It would be easy to view the relationship between SDGs and the DE model as compatible. This is not the case. In fact, the latter transcends GDP growth, and the SDGs do not, leaving room for the PPP to move beyond economic growth. Therefore, the role of the third (economic) pillar of sustainability, which may otherwise seem to be a bit like the elephant in the room, is considered in this review.

To identify its potential as a contributor to the city's sustainability, it is prudent to determine the character, and reveal the content of, the argumentation directed at current PPP in the Nordic context. However, the PPP may not be willing to, or cannot, assert itself to erase what the reviewed research has identified as its transgressions. At this juncture, the reader is reminded that the research goal is a normative one, that is, to determine the PPP's potential as a contributor to sustaining our future cities.

3.1. Socially Sustainable Housing Development

When surveying the social foundation of housing development, it is important to note that although "there are techniques for measuring a reduction or an increase in quantities of CO₂ and for measuring economic gains for a housing company, there are no comparable yardsticks for 'social sustainability', i.e., there is no 'social dioxide' to measure" [75]. Nevertheless, and guided by Raworth [5], four contentious issues have been identified in current research. These outline the future reach of the PPP's potential social sustainability goals, that is, its ability and ambition to engender social equity, be responsive to the collective voice of residents, be a fair developer, and finally, achieve these ends by spinning a wide web of robust social networks. By taking a point of departure in definitions of the four identified social foundation issues used by proponents of the DE model, it is possible at a later stage to compare them with the content and form of the arguments and themes intrinsic to each of these issues as they are systematically described in the literature review.

In Bending Stopper, Kossik, and Gastermanns' [76] version of the DE model in the context of housing development, engendering social equity is first and foremost about housing developers treating different groups of residents equally. Housing companies should, therefore, cooperate socially with local actors in accordance with corporate social responsibility standards. Being responsive to a collective voice is defined as creating the conditions for residents to participate in, or influence, corporate management. Justice is defined in terms of vulnerability and safety. Being a fair developer is, thus, about minimizing residents' vulnerability to housing development. This definition is narrow in comparison with, for example, Jane Jacobs' vision of a just city, which advocates among other things that policy makers are open for anti-subordination [77]. Finally, robust social networks are addressed in terms of generating conditions conducive to a resilient neighbourhood social culture.

Consequently, the fourth tangible result is that the PPP has not yet tackled the full spectrum of the social foundation of sustainability, as depicted by Raworth [5] and Stopper et al. [76] in the DE model. In fact, as it stands, it seems to ignore gender equality, neither does it appear to promote education and guarantee income and work nor cater for

the health of residents. Although focus on four issues narrows the scope of the analysis, there is still an opportunity to dig deeper into them by putting each of them under the analytical lens to find the arguments and themes that evoke criticism from colleagues. In essence, putting each issue through a process of softening up, by introducing new contentious themes to gain a new perspective, widens the research community's horizon concerning the potential of the PPP. Identifying the themes intrinsic to each issue is in itself a result, that is, revealing how the PPP could become a solid and essential segment in the social foundation of sustainable cities and communities. Ultimately, the analysis will reveal the sufficiency of the PPP as a necessary contributor to mitigating an unsustainable global and local development.

3.1.1. Social Equity

In all, twelve (48%) of the reviewed research articles pertain in one way or another to the social equity component of the social foundation of sustainability (Table 1), as depicted in the DE model [5]. After determining each of these article's common theme(s), arguments are sorted under three general headings: access, ownership, and implementation (as in Table 3). Each theme is made up of a number of arguments put forward by the author(s) if a PPP is to achieve social equity. All in all, we highlight eight arguments in Table 3 that can consolidate PPP as part of the future city's social foundation.

Table 3. Arguments for the construct of “social equity in housing development”.

No.	Themes	Sources	Arguments for Social Equity
1.	Access	[40,50–52,64]	<p>Guarantee the availability of urban green space [50]</p> <p>Increase more affordable social housing via social mixing and positive discrimination [51,52]</p> <p>Avoid landscapes of exclusion and gentrification that widen rent gaps [40,64]</p>
2.	Ownership	[51,58,67,72]	<p>Cultural districts with housing for all citizens [58,67]</p> <p>Avoid building for wealthier homeowners and favouring the preferences of middle and upper classes [51,72]</p>
3.	Implementation	[50,58,63,64,67,70,71,73]	<p>Avoid neoliberal governance of advanced urban marginality [64,71,73]</p> <p>Promote a bottom-up and top-down mixed approach including social services is desirable [58,67]</p> <p>Promote better decision-making processes to void inefficiencies in bureaucracy [63,70]</p>

Under the theme of access, some researchers identify the need for the PPP to make green space more available for resident's irrespective of their class status [50]. Other authors suggest increasing the affordability of social housing [51,52]. Finally, when evaluating entrepreneurial real estate policy in Finland Hyötyläinen and Haila [51] (p. 144) emphasize in the following quote that positive discrimination can increase access to new housing development:

Helsinki, a small Nordic welfare city, has so far been able to avoid inequalities that generate distress in large European and American cities. This can be explained by referring to a well-functioning social policy, instruments like the production of social housing, and the policies of tenure mix, social mix and positive discrimination.

Ultimately, a policy of social equity that guarantees access to affordable social housing and green space can also contribute to avoiding the now common and ubiquitous processes

of segregation that hamper the attainment of social sustainability goals [64]. Another social equity and access hurdle is, for instance, the rent-gaps identified by Thörn and Holgersson [40] in the housing context in Gothenburg, Sweden.

The second aspect of social equity that researchers focus on is ownership. According to Hyötyläinen and Haila [51], a housing development PPP has the potential to avoid building for exclusively only wealthier homeowners. However, this assertion is ambitious since Andersen, Eline Ander, and Skrede [72] (p. 709) show that:

... developers are influencing demographic, material, social and cultural changes through their investments and are consciously and strategically reshaping places to increase profits. The profitable 'rent gap' – that is, the gap between the current income earned by a property and possible future income (Smith, 1987) at Tøyen and Grønland – seems to be the driving force for the developers investing in these areas.

For this reason, it is suggested that by building what Lidegaard, Nuccio, and Bille [58] and Berglund-Snoddgrass et al. [67] call cultural districts, the PPP is given an incentive to plan and cater for a wider range of resident and entrepreneur preferences, not just those of the privileged affluent. Lidegaard, Nuccio, and Bille [58] (p. 16) claim that

governance models should be designed according to policy goals, which are often conflicting, and therefore any proposal for a cultural district should balance equity and efficiency norms to match the expectations of involved stakeholders.

Based on the number of mentions in the literature review, implementation is by far the largest theme in social equity (Table 3) and sheds light on the tendency of the PPP to develop housing and public space within a system of neoliberal governance [71,73]. In the reviewed literature, most researchers argue that neoliberal policies do not resonate well with policies of social equity (as described in Table 3) but are often implemented by inciting fear and anxiety among poor and affluent residents alike. Olsson et al. [50] (p. 311) gives one reason why this can come about:

This anxiety is not just expressed as fear for increased costs, but also as a long lasting emotional experience caused by having your belongings destroyed and enduring long-lasting renovations.

For this reason, and with the attainment of social equity in mind, the researchers in this study recommend that the PPP apply a mixed, that is, top-down and bottom-up, approach to housing development that includes social services. This kind of implementation is more equitable since it satisfies the preferences of residents from different income brackets as well as a wide range of entrepreneurs, coming to terms with an otherwise inefficient and subsequently socially unsustainable decision-making process [63,67]. In fact, Puustinen and Viitanen [63] (p. 495) indicate

that the decision-making process is unestablished, and challenges exist on three levels: (1) legal and land use planning, (2) collective action and management and (3) required professionals. These issues need to be considered in order to develop better practices for the process, and also, when assessing the feasibility of infill development for housing companies from the land use planning, legal and economic perspectives.

In sum, researchers suggest that new planning perspectives that include residents' and developers' preferences ought to be adopted by the stakeholders that constitute the PPP if future housing development is to be built upon a solid foundation of social equity. They imply that this will not be possible if the PPP continues to rely on current neoliberal justifications.

3.1.2. Political Voice

Seven (28%) of the reviewed research articles touch on the issue of residents' collective (community's) political voice (Table 1). In other words, political voice is also a piece, albeit a smaller one, of the social foundation pie than, for instance, social equity is. To reiterate, from the reading political voice can be sorted into two predictable themes: participation and citizenship (as in Table 4). While participation is a civic culture phenomenon, that is

engaging residents and communities in local issues, citizenship is more focused on the rights of residents, that is, the need to be heard, included, and organized. Together, the authors of these articles argue that if the PPP listens to the political voice of residents and local communities, it will benefit their housing development and make it more socially sustainable.

Table 4. Arguments for the construct of “political voice in housing development”.

No.	Themes	Sources	Arguments for Political Voice
1.	Participation	[50,59,68,69]	Promote participatory structures [50] Promote participatory culture [50,59,69] Promote participating in collaborative initiatives [50,59,68]
2.	Citizenship	[50,51,55,56]	Give residents a louder voice [50] Guarantee inclusion of all concerned citizens [51,55] Promote citizen led initiatives [56]

Looking through the analytical lens used here, it is obvious that political voice often pertains to the establishment of structures that engender a culture of resident participation [50,59,69], as well as constitutes the basis for possible joint collaborative initiatives between residents and the PPP [50,59,68]. An example from Sweden shows how diverse and inclusive a participatory structure can be in terms of stakeholder involvement Olsson et al. [50] (p. 310):

Some of these structures concern interactions between different property owners, for example the BID [Business Improvement District] and local divisions of the Swedish Union of Tenant Association, as well as between property owners and their tenants.

In this case, the concerned authors are highlighting the possibility of building on existing networks that already include resident participation, not just PPP stakeholders. However, according to Juhola, Seppälä, and Klein [68], there is still room for much improvement. They [68] (p. 24) say that there should be more

... emphasis on creating innovative solutions in partnership with the private sector and a focus on efficiency has disturbed the long-term horizon of urban planning and democratic legitimacy, which are both resource and time demanding.

There can, therefore, be resistance within the PPP to new ways of thinking. The PPP needs incentives such as a more democratically legitimate role in future urban planning. This can redirect its focus towards laying a more solid social foundation that, in turn, contributes to sustaining the city and its communities.

Concerning citizenship, and depicted in Table 4, some authors in this study give other arguments for the need for residents’ collective voice to be heard [43] and included [51,55]. They claim that residents should even take the initiative in some aspects of housing development [56]. For instance, in the Danish climate policy context, Sørensen and Torfing [55] (p. 13) maintain that

... with its emphasis on needs-based problem-solving, knowledge-sharing, joint risk assessment, coordinated and adaptive implementation, and shared ownership of new and bold solutions, co-creation offers a near-perfect strategy for achieving highly ambitious climate mitigation goals.

These arguments suggest that citizenship can easily be applied to the context of housing development and can identify what the concerned researchers perceive as shortcomings in the PPP’s ability to engage, or listen to, residents concerning the development of housing in the city’s neighbourhood landscape.

3.1.3. Justice

Justice, together with social networks, is by far one of the largest components of the social foundation of housing development (see Table 1). This important result reveals a need for PPPs to better understand how its housing development influences the dynamic of social justice in relation to sustainability. Seventeen (68%) of the articles pertain to justice in one way or another (as in Table 2). From a plethora of critical arguments, three major themes are deduced (as in Table 5). These are related to the elite's power and their documented injustices and role in the (de)stigmatization of so-called deprived neighbourhoods. The relationship between these themes is obvious. Elites use of power can sometimes lead to injustices such as creating rent gaps and stigmatizing neighbourhoods with the intention of emptying them of poor residents (gentrification). What is termed here as social sustainability via eviction.

Table 5. Arguments for the construct of “justice in housing development”.

No.	Themes	Sources	Arguments for Justice
1.	Elite power	[40,50–52,60,62,64,65,67,70,72]	Avoid government (state) steering [52,60,65] Avoid privileging certain sectors, while marginalizing others: social sustainability via eviction [50,62,64,67] Deliberate the fact that joint forces of the elite displace long-time inhabitants [40,70,72] Promote ceding city planning power to citizens [51,70]
2.	Injustice	[51,58,61,63–65,73,74]	Counteract negative effects of gentrification [57] Deliberate conflict resolution in land-use [61,63] Promote revamping distressed neighbourhoods [64] Include all stakeholders in a specific governable context [65] Introduce strong social focus on BID property development [73,74]
3.	Stigmatization	[40,71]	Avoid redevelopment through stigmatization of neighbourhood [40] Be wary of territorial destigmatization regimes [71]

Concerning the elite power theme intrinsic to justice, researchers suggest that four steps can be taken toward justice (as in Table 5). The common denominator for their argumentation is the need for new approaches to avoid an uneven distribution of housing resources [52,60]. To avoid this, la Cour and Andersen [65] suggest a new form of collaboration: metagovernance. They [65] (p. 920) state that

The shift from government to metagovernance ... represents an extraordinarily radical displacement of the contract's form. These new forms of collaboration are bringing about revolutionary changes in the traditional relationship between municipalities and housing associations.

This implies that the PPP shares power with [51,70], and includes the needs of, marginalized residents vis a vis the housing association [50,62,64]. Berglund-Snodgrass et al. [67] (p. 877) even go as far as to argue for the inclusion of social services and marginalized residents:

By primarily organizing settings and knowledge that render familiar to a technocratically governed urban planning, the social services struggle to get recognition in the process or fail to see how their working processes and situated knowledge can be incorporated in the housing provision planning – and are, as a consequence, marginalized in the process.

For instance, the PPP as an elite should not, it is argued by Noring [70] and Andersen et al. [72], be allowed to displace residents. By including the social services in new collaborations such as metagovernance, the elite can be dissuaded to displace. Displacement is, in this reading of the literature, however, a common occurrence.

The theme of injustice is derived from research that specifies different ways to avoid what the authors view as a predominantly unfair housing development. The principles of fairness they suggest in their argumentation, and listed here, ought to be viewed as a form of triage that includes arresting negative neighbourhood effects. This, they claim, can only be done by diluting the current strong focus on Business Improvement Districts (BID) property development with social sensitivity [58,64]. In the Danish context, Richner and Olesen [73] (p. 167) capture this line of argument when they argue that:

... the particularities of how the BID model is being translated into the Danish context should not be misread as a case in which the strong Danish social welfarist tradition has mitigated the 'neoliberal aggressiveness' of the BID model.

Thus, and as means of circumventing the ends of neoliberal aggressiveness, BID property development should, according to Candel Candel, Karrbom Gustavsson, and Eriksson [61], also include solutions that satisfies the preferences of all actors, specifically meeting the particular needs of the bureaucratic and political municipality in terms of social equity and political voice and, thus, the general requirements of social sustainability.

Another aspect of (in)justice intrinsic to housing development is the use of the broader phenomenon of stigmatization and responding with the method of destigmatization to redevelop a neighbourhood. Returning once again to the case from Kvillebäcken in Gothenburg, Sweden, we lean on Thörn and Holgersson's [40] (p. 380) illustration of the anatomy of destigmatization and its end product, displacement,

... to unravel how the joint forces of the elite (in our case the close cooperation between private real estate owners and the municipality) stigmatizes areas, make the inhabitants invisible and then displace them to favour financial profit.

As a reaction to this unwanted outcome, some researchers suggest that the PPP or other similar collaborations ought to focus instead on a process of destigmatization here defined "as interventions, initiatives, processes or strategies carried out with the intention of reducing, removing, redirecting or remedying the territorial stigmatization of specific places" [71] (p. 1). Schultz Larsen and Delica [71] show, moreover, that this phenomenon is also a wicked problem since it too leads to displacement, and via its Sisyphian character, it "has become a legitimation of the current radical policy measures of demolition, eviction, gentrification and reprivatisation of the stigmatized territories" [71] (p. 17). In sum, the issue of justice, or housing development as fairness, is predominantly a reaction to what scholars perceive as a radical, harmful, aggressive, and socially unsustainable neoliberal housing policy.

3.1.4. Social Networks

As mentioned earlier, social networking is also a big issue that underpins the social foundation of sustainability (Table 1). Seventeen (68%) of the articles that constitute the literature review pertain in one way or another to social networks and their underlying themes (as in Table 6). In the reading, two themes quickly became obvious. The first theme is connectivity and the second collaboration. Connectivity is about the shape or structure of the social network (lines), while collaboration is about which actors are involved (nodes) and how they interact. The link between these two themes and social networks is obvious. If there is a lack of connectivity between stakeholders (developers) and actors (housing associations, social services, and communities as well as residents) concerning recent housing development in the Nordic context, particularly Sweden, then the question that must be answered is if the PPP has a role to play here. Therefore, a substantial number of researchers (as in Table 2) have researched the PPP from these two angles. They have

presented several different proposals for the creation of social networks from which are derived eight arguments in Table 6.

Table 6. Arguments for the construct of “social networks in housing development”.

No.	Themes	Sources	Arguments for Social Networks
1.	Connectivity	[50,54,57,60,62,68,69,71]	Address policy schizophrenia [71] Consider social structures that encompass most segments of society and avoiding the disconnect between actors [50,54,57,69] Focus on project-bound issue networks, conditioned by local actors [60,62] Promote existing urban governance structures that include key local actors and residents [68,69]
2.	Collaboration	[55,56,59,61,63,66,68,72–74]	Address collective action challenge [63] Construct formal and informal actor-network to mobilize support for urban development [56,73,74] Co-create value via, inter alia, co-management zones [55,59,61] Combine different mode of governing, participation, and coproduction as a counterweight to non-coordinated elite (neoliberal) strategies [66,68,72]

Concerning the connectivity theme, there is an obvious need to reshape the social network in a way that, according to Schultz Larsen and Delica [71] (p. 17), addresses what they term as policy schizophrenia defined here as “fragmentations, splits and contradictions of the current policy regime of housing development”. It is argued that the collaborative dimension of social network ought to have both a formal and an informal interaction character [56,73]. A first step in this direction is linked to collaboration and presented by Storbjörk, Hjerpe, and Glaas [74] (p. 582) when they lift several Swedish cases where what they coin the term “developer dialogue”, which was applied to encourage public and private actors to “pull together” to mitigate climate change via housing development.

Malmö, with the district of Västra Hamnen, is often presented as a successful case where developer dialogue facilitated learning and knowledge exchange among property developers and municipal coordinators ... Combining district-level planning with strategies that spur willingness to excel and give credit to those who goes beyond business-as-usual is potentially one way forward here.

Developer dialogue is just one way put forward to scaffold complex stakeholder networks in housing development, particularly when addressing the challenges that face the city and its communities [63]. However, it lacks the ability to include all actors. As a means to the end of widening this collaborative approach, a new point of departure is introduced. This implies co-creating innovative solutions for complex problems (see, for instance, [55,59,61]). This segment of the reviewed research claims that this specific kind of interaction can counteract the negative effects of housing development associated with one-sided neoliberal housing strategies with major legitimacy deficits [66,68,72].

In order to achieve this, the PPP, according to researchers such as Olsson et al. [50], Borgström [54], Glaas et al. [57], and Gohari et al. [69], must permeate and connect with all of society’s social strata. Taking the Swedish context as an example, the reason why this is necessary becomes obvious. When studying housing development in Stockholm, Borgström [54] (p. 472) says that

The disconnect we found was a bit surprising, given the long-term Swedish tradition of involving and interacting with civic associations, which can be interpreted as good grounds for trust, communication and collaboration.

This finding indicates that most PPPs in Sweden (like elsewhere) do not just follow neoliberal strategies but may have problems with engendering trust and maintaining lines of communication with residents. As a counterweight to the absence of local actors in PPP networks, some Swedish researchers argue for the implementation of what Elander and Gustavsson [60] have coined “project-bound issue networks”. This ought to include, besides the “usual suspects” of the elite, local actors (see also [62]).

Viewing social inclusion in this broader context, individuals could increase their social capital and thereby make themselves better able to participate in local planning and politics, perhaps even by acting as “everyday makers”. [60] (p. 1095)

This coincides with the aspirations of another cohort of the small research community in focus in our study. They argue for the promotion of the idea of social inclusion and participation in what they term as the existing urban governance structure [68,69]. This may be a solution to the policy schizophrenia referred to by Schultz Larsen and Delica [71].

3.2. Ecologically Sustainable Housing Development

Regarding the ecological foundation of housing development, and guided by the reading of the latest research, concerning PPP in the Nordic countries, two issues and six themes have surfaced. Guided by the DE-model [5], these issues and themes together outline the potential role of PPP in terms of its ability to tackle the ecological sustainability challenges the city and present as well as future generation communities are facing. That is, ways in which PPP ought to tackle climate change and the combined issue of contributing to biodiversity, on the one hand, and minimizing land conversion and preserving biodiversity, on the other. Derived from Stopper et al. [76] version of the DE model climate change is defined as supply chain management, reduction of CO₂ emissions, energy consumption reduction, increased energy efficiency, and renewable energy use such as biofuel [76]. While biodiversity and land-conversion are defined as the conservation of regional species and use of raw materials produced by organic farming, effective use of old industrial sites, and laying out greens space, respectively [76]. In the following section, each issue and inherent theme mirrors the potential of PPP to become more sustainable with regards to these two planetary boundaries (PBs) of ecological sustainability [4].

Aligned to the social side of the sustainability coin, one initial tangible result is that in its present role, PPP does not tackle the full spectrum of ecological issues as PBs in the DE model [4,5]. From the reading of the research on PPP in housing development, it is apparent that neither the PBs of air pollution, chemical pollution, ozone layer depletion, ocean acidification, freshwater withdrawals nor nitrogen and phosphorus loading are considered. The remaining two issues have undergone a similar softening up process as the social issues. That is, the same modus operandi is applied to synthesize Raworth’s [5] broader issues with a deeper critical perspective on the PPP provided by the authors of the reviewed research. In this way, the analysis will also reveal the ecological potential of PPP in sustainable housing development.

3.2.1. Climate Change

To reiterate, cities today are at risk of facing the increasing negative consequences of climate change while they themselves are responsible for 75% of the world’s emissions with regards to energy use [1]. Nine (36%) of the reviewed articles touch on the issue of climate change (Table 1). In the reviewed research, three themes and ten arguments intrinsic to climate change were identified. These are based on how PPP in housing ought to tackle the multitudes of challenges concerning tackling climate change via participation, mitigation, and adaption (as in Table 7).

Table 7. Arguments for the construct of “climate change in housing development”.

No.	Themes	Sources	Arguments for Climate Change
1.	Participation	[50,55,66,68,70,74]	Climate change tackled through co-creation, participation, and co-production [50,55,68–70] Promote local Governance [66] Sharp goals in public-private interplay [74]
2.	Mitigation	[55,57,60,66,69,74]	Energy efficiency, energy positive, and fossil free power [55,57,60,66,69] Challenge mainstream building practices [66] Consumption and transport behaviour [55,74] Visualisation and measurements [57]
3.	Adaptation	[50,57,74]	Ecosystem services [50] Mitigation of flooding [50,57,74] Adaptation to health stress [57]

As noted above, several researchers identified the need for PPP to get involved in different forms of participation strategies to tackle the complex issue of climate change in the urban environment (see also Table 4). When it comes to ambitious climate goals, where the PPP and citizens must become involved, co-creation is considered a “near-perfect” strategy [55]. Even if citizen participation is often marginal in projects tackling climate change, it is nevertheless essential in the attainment of tangible results [50,69]. It is believed that if a platform for participation is created, where both stakeholders and citizens can express their opinions and ambitions directly, the process will be both effective and democratic [69].

Other authors are more reserved claiming that a participatory strategy offers a promise but not a perfect solution to climate change since there are several barriers that need to be addressed [68]. For instance, and flipping the participation coin, in collaborations between public and private companies, private companies tend to downplay high climate goals [74]. To overcome this barrier, Storbjörk et al. [74] (p. 582) suggest

...the steering strategies used by public actors to secure the realization of key public goals such as climate change in urban development needs to be refined and sharpened, particularly at the stage of sustaining commitments and securing formal agreements.

The second theme that emerged on how PPP can tackle climate change is through mitigation. Examples of technology application to support mitigation strategies include energy efficiency [60], reductions in district heating and the proliferation of windfarms [55], maintaining high requirements for energy [69], guaranteeing fossil free power utility [57], and following specific technical requirements and standards [66]. To support this kind of technology-transition, Smedby and Quitzau [66] (p. 332) suggest local government have an important role to play, for instance:

Local governments proactively engage in a balancing act aiming at integrating radical innovations and mainstream construction practices to foster the transition towards sustainable socio-technical systems.

Some researchers bring attention to the problematic of technological solutions promised by the “smart city” approach, particularly when technical, economic, and political goals are frequently prioritized over social and environmental goals. However, another solution to unsustainable development is, to reiterate, to include citizens, communities, local associations, as well as concerned PPP stakeholders in the smart city approach [69].

For cities and PPPs to keep the global temperature well below an increase of 2 °C (agreed in the Paris Agreement) and to mitigate the worst effects of climate change, challenges such as changing citizens’ consumption and transport behaviour need to be addressed [55]. Some suggestions concern changing mobility patterns by reducing parking lots and introducing carpools, avoiding floor heating [74], and reducing emissions in construction [50]. In addition, the measurement and visualization of climate change effects

need to be combined with clear targets and a systemic understanding if urban climate transition is to be achieved [57].

To adapt to the effects of climate change, and to prevent extreme weather events, some researchers suggest ecosystem services (ES) as a strategy for PPP [50]. In one project, adaptation strategies such as storm water mitigation through ponds or green areas were part of a vision to mitigate the negative effects of climate change [74], and in another project, progress was made in adapting buildings for heat stress [57]. Once again, the local perspective is identified as being important to achieve a just adaptation according to Olsson et al. [50] (see Table 7 above). Olsson et al argue [50] (p. 312)

... that there is a need to measure and map the ES provision at the neighbourhood level in relation to the needs of divergent stakeholder groups, understanding the trade-offs between local and city needs.

Researchers suggest that for PPP to tackle these complex challenges of climate change, both mitigation and adaptation strategies need to be addressed simultaneously. Technological solutions will contribute, if, and only if, they are not prioritized over socio-ecological goals and targets. For PPP to adopt these ecological strategies, stakeholders will need to engage in co-creation and participatory strategies with residents and other local stakeholders.

3.2.2. Biodiversity Loss and Land Conversion

Biodiversity and land conversion are two PB's that are central to housing development and have transcended beyond just being a safe space for humanity [4]. For instance, land use policy can impact housing provision through incentives and restrictions [78]. In this case, the two PB's are combined since they are innately interconnected. This implies that first order effects in land conversion might cause second order effects for biodiversity and vice versa [79,80]. By far the smallest issue, touched on by a mere five (20%) of the articles in the review, biodiversity and land conversion, has three themes. These are: anthropocentrism, collaboration, and inaction and divestment. In all, and because they are a criticism of PPP involved in housing development, these themes are deduced from five arguments put forward by the authors in the review (as in Table 8).

Table 8. Arguments for the construct of “Biodiversity and land conversion in housing development”.

No.	Themes	Sources	Argument for Biodiversity and Land Conversion
1.	Anthropocentrism	[50,56,59]	Residents need for green space [50,56,59]
2.	Collaboration	[56,59]	Stakeholder involvement important [56] Co-management in urban forestry [59]
3.	Inaction and divestment	[51,57,59]	Biodiversity and land use are subjects of inaction [57,59] Avoid divestment of land by municipalities [51]

Concerning anthropocentric needs, Olsson et al. [50] recognize a need among residents for green space in, or near, their neighbourhoods. Here, access to green space is underpinned by both social and ecological arguments (see also Table 3). Nevertheless, with regards to urban farming and food production, green spaces such as community gardens only have a marginal contribution to sustainable development in the city in terms of instrumental value [56]. Nevertheless, there is still support for the idea of creating and developing community gardens to further contribute to sustainable development, Bonow and Normark [56] (p. 515) suggest

...municipalities and housing companies should also focus on knowledge support, as well as providing some physical prerequisites for growing (access to water, etc.).

In addition, for community gardens to become more sustainable with regards to food production, Bonow and Normark [56] suggest the involvement of stakeholders from NGO's,

the municipality, and housing companies to facilitate the processes further. This is evidence that there is a potential role for PPP to play in this context. Similarly, Fors et al. [59] (p. 54) discover once again the importance of collaboration (see Table 6), and

...emphasizes the need for continuous municipality-resident communication, including municipal guidance, inspiration and control.

However, community gardens [56], and public woodland also have a well-documented recreational value for both present as well as future generation residents [59]. Therefore, green areas have, as noted above (Table 3), an even greater significance for social sustainability.

When it comes to biodiversity and land conversion, human intervention in nature is in focus, while the enrichment and preservation of species (biodiversity) and nature in human “space” are less common [59]. In urban climate transition, it is common with inaction with regards to biodiversity, forestry, and agriculture while most focus tends to go to energy solutions and activities [57]. Fors et al. [59] suggest that this aspect needs further research to find solutions that benefit both biodiversity and the urban environment. A case from Finland shows that when a municipality sells public land to housing developers, it loses control over both its use in terms of urban farming and recreation (biodiversity) as well as housing prices. Hyötyläinen and Haila [51] (p. 144) were critical of this kind of development in a project in Finland; Helsinki

... Eiranranta was an experiment by the City to test the upper end of the housing market we can just hope this experiment does not lead to more selling off of public land.

In conclusion, human needs are today the priority and the guiding principle for PPPs when converting land for housing development, while biodiversity and land conversion are not that prioritized. In order to create a sustainable city, all of these three aspects, human needs, biodiversity and land use, will need to be prioritized by the PPP in an equal manner. Municipalities and the PPP need, thus, to avoid selling land and falling into inaction with regards to biodiversity and the segregation of whole communities and their neighbourhoods negating the possibility of creating a harmonious urban environment. Housing companies, municipalities, NGOs, housing associations, and residents are recommended to collaborate and participate in safeguarding nature and the city’s ecosystems.

4. Discussion

Given the fact that the complexity of sustainability in the urban environment often exceeds the capacity of an individual organization [6,7], the potential role of PPP in sustainable urban development and renewal was investigated and found to be crucial. Applying the DE model [5], the systematic literature review shows how housing development can become more sustainable if certain identified issues and themes are brought to the attention of, and internalized by, the PPP in the future.

However, to meet the needs of local housing development in the Nordic context, the DE model needs further revision [5]. Scaling down from PBs and SDGs to local problems such as inequalities is, however, not a trivial task. To this end highlighting features of “... the harmonious evolution of civil society, fostering an environment that encourages social integration, with improvements in the quality of life for all segments of populations” [81] (p. 19) was essential.

Moreover, consideration was taken of the fact that the DE model focuses on countries irrespective of their political systems. As it stands, the ecological foundation of the DE model disregards differences between places. However, the Nordic-countries are representative democracies characterized by parliamentarism and the condition of moderate scarcity [82], and with increasing spatial segregation in mind, some issues such as gender equality, political voice, and education are aspects of social sustainability that still remain problematic in a democracy. Likewise, with climate change in mind, an open mind is essential concerning the issues of food, water, and energy, which do not appear to be a major concern for social sustainability in the Nordic countries. Similarly, a reflection

on which aspects of ecological sustainability PPP can and cannot influence needs to be undertaken. For instance, ocean acidification or phosphorus loading seem to be beyond its reach. For this reason, a holistic and systemic point of view was applied [42,83]. Thus, the DE model and all its issues are applied and left open for discussion.

4.1. Participation and Collaboration

First and foremost, the authors find that broader participation and more inclusive collaboration in PPP is crucial if cities in the Nordic countries are to move in the direction of sustainable housing development. These two themes constitute a common denominator for achieving both types of sustainability. They also constitute a key argument for reforming PPP. For instance, PPP needs to reconsider the importance of residents' preferences by promoting their participation in the development and renewal of urban areas. Furthermore, PPP needs also to move beyond present collaboration to new forms such as co-creation with residents and other community actors. From the point of view of the reviewed research, this would counteract and circumvent the current negative effects of neoliberal housing strategies. It is also a way to mitigate climate change and spatial segregation as well as contribute to more access and biodiversity in the city. Mang and Reed [84] corroborate this view when they too show that a participatory design is an effective and systemic strategy to engage residents and maintain trajectory toward a sustainable and regenerative society.

4.2. Justice and Social Networks

Justice is the first big issue in the review (see Table 2). Winston and Eastaway [85] corroborate this. They say that social sustainability is about guaranteeing equal opportunities in new housing development [85]. This research shows that justice as fairness can be expressed in the micro context of the neighbourhood in terms of adequate domestic living space, affordable housing, and resistance to crime and in the macro context of the city in terms of reduced social spatial segregation [86]. It is clear from the review that the research community, governments, and their national policies, as well as international treaties need to deliberate the power that the joint forces of PPP are wielding. The question at issue, with the future city in mind, is if these stakeholders are willing to cede their power to better serve the people. Hence, if the PPP is to take heed to the issue of justice, it needs to understand, with the case of Kvillebäcken addressed by Thörn and Holgersson [40], how it can avoid destigmatization processes. In essence, PPP has the potential to buttress the city's need to live in tune with its society and environment. Ultimately, a greater understanding of the power dynamic of PPP in sustainable housing development is needed to achieve this.

The importance of stretching and deepening participation and collaboration is most evident in the issue of social networks, which is also touched on by many researchers in the reviewed articles (see Table 1). The review reveals that there is a need for cultivating networks made up primarily of people, non-profit civic organizations, and PPP [76]. For this kind of public-private-people partnership (PPPP) to come about researchers say that current structures need to transcend social strata, thus, bridging the distance between diverse groups in society [54,57,69]. Another argument for bringing different actors together under the umbrella of PPPP is that it encourages dialogue [74].

One major discrepancy was found between the issues intrinsic to the DE-model and the reviewed articles (see Figure 3), on the one hand, and the UN's universal SDG 11 and its subgoals, on the other. In the review the spotlight was on social networks and justice. However, in the subgoals of SDG 11, neither social network nor justice are addressed to any greater length (see Table 1). This is an interesting finding since most researchers in the review regard these issues as the main weaknesses of the housing development PPP. This is unsurprising since the authors are not applying all SDGs to the case of PPP in housing development. This implies that even if PPP adhered to the goals of SDG 11, it would still need to address all the SDGs and PBs to tackle the sustainability challenges that future cities are facing.



Figure 3. The potential of PPP with regard to the localized DE-model.

4.3. Superimposing Local Context Issues on the DE Model

The method applied here shows that there are a number of similarities and differences between the character of the same issues that connect the global model of sustainability to the harsh reality of the local context now superimposed on Figure 3. Social equity, justice, social networks, climate change, and biodiversity loss and land conversion are good examples of issues that are heavily criticized and, thus, change character by expanding into multiple themes at the local level of the PPP, while political voice is a good example of an issue that does not change character after transcending the global-local divide. Nevertheless, this implies only that local researchers amplify DE model theorists' calls for more participation and citizenship, which the authors of this review maintain that PPP has the potential to achieve. The connection that bridges the PPP-sustainability divide is still weak and needs to be strengthened in accordance with the review's results.

Concerning the PPP-sustainability gap, it is obvious that issues that underpin the future city's social foundation such as gender equality, health, education, income and work, food, water, and energy need to be addressed more in-depth in housing development in the Nordic countries. Consideration also needs to be taken of the gap in housing development's ability to tackle issues related to the future city's ecological ceiling such as freshwater withdrawals, nitrogen and phosphorous loading, chemical pollution, ocean acidification, ozone layer depletion, and air pollution (Figure 3).

4.4. A Holistic and Systematic Approach

A major concern for researchers is that the gap identified in the modified DE-model (Figure 3) cannot inform about those issues the review did not explicitly mention such as food (apart from community gardens) and ocean acidification. Noteworthy is that energy

and water seem in the Nordic countries to be an ecological problem not a social one. What can be said, however, is that there is a lack of research in the reviewed literature on how PPP can tackle these issues.

For the city to become sustainable, PPP will need to adopt a holistic point of view and address more sustainability issues. For instance, one of the issues that is missing from the repertoire of PPP is pollution. Lowering chemical pollution in construction through reusable and recycled materials [87] or densifying the city to mitigate air pollution [88] are two strategies that PPP has the capacity to influence or adopt. Using the same line of holistic reasoning concerning health, PPP housing development needs to guarantee access to public green space, even if it is concentrated in areas of dereliction [85].

5. Conclusions

First, if the collaborations that constitute PPP are to be used to develop cities, their responsibility must go far beyond developing housing. For PPP to contribute to future sustainable urban development and renewal, they will need to address both social and ecological issues in a more systematic, participatory, and collaborative manner. Adding a fourth P, people, to PPP might be a first step in the right direction for this to transpire.

The second concerns the application of the DE model. This review article shows that the DE model can be used in a normative sense, that is, to test the scope and depth of local collaborations such as PPPs and reflect on international treaties such as SDGs. The application of the DE model in this article is a proof of concept that reveals both the shortcomings of PPP and SDG 11. The revised DE model transcends beyond the notions of sustainable development expressed in SDGs to create a more social and ecological sustainable city. It can also be applied to various forms of collaboration with a focus on any of its DE model's issues.

Third, the DE model reveals the need for a better connection between global sustainability and the PPP's potential to address certain issues such as justice and contribute to the sustainability of the future city, appeal to its communities, and move beyond the limitations of SDG 11. The DE model also reveals a gap in terms of the issues not touched on in the reviewed research that must be addressed after the mentioned connection is strengthened.

Fourth, and based on the results, it was found that only seven of the 21 issues touched on by the DE model are covered by the reviewed research. Another result reveals that PPPs in this study are always being criticized and mostly for their lack of social sustainability. This undermines the social foundation of the future city and its communities. What is also striking is the fact that the two main issues, justice and social networks, touched on by most researchers in the review are those not covered by SDG 11. In essence, a new gap in knowledge becomes apparent in a comparison of the DE-model with the subgoals of SDG 11. Consequently, the PPP has not yet tackled the full spectrum of the social foundation of sustainability, as depicted by Raworth [5] and Stopper et al. [76] in the DE model. In fact, as it stands, it seems to ignore gender equality, and neither does it appear to promote education, guarantee income, and work nor cater for the health of residents.

Fifth, based on suggestions from researchers in the review, new planning perspectives that include residents' and developers' preferences ought to be adopted by the stakeholders that constitute the PPP if future housing development is to be built upon a solid foundation of social equity. They imply that this will not be possible if the PPP continues to rely on current neoliberal justifications. To reiterate, these arguments also suggest that citizenship can easily be applied to the context of housing development. Moreover, a focus on citizenship can identify what the concerned researchers perceive as shortcomings in the PPP's ability to engage, or listen to, residents concerning the development of housing in the city's neighbourhood landscape. In sum, the issue of justice, or housing development as fairness, is predominantly a reaction to what scholars perceive as a radical, harmful, aggressive, and socially unsustainable neoliberal housing policy.

Furthermore, another cohort of the small research community expressed the need for more robust social networks that coincides with the aspirations of in focus in the study. They argue for the promotion of the idea of social inclusion and participation in what they term as the existing urban governance structure. As mentioned earlier, this may be a solution to the policy schizophrenia referred to by Schultz Larsen and Delica [71]. Researchers also suggest that for PPP to tackle the complex challenges of climate change, both mitigation and adaptation strategies need to be addressed simultaneously. Human needs are today the priority and the guiding principle for PPPs when tackling issues of justice, climate change, and converting land for housing development. Finally, and in order to create a sustainable city, all of these issues will need to be prioritized by the PPP in an equal manner.

6. Limitations and Future Research

Finally, and highlighting some current limitations of this study, the article does not address the positive aspects of PPP. Instead, focus was on deriving its future potential to achieve sustainability in the city from critical accounts in the literature. Therefore, the authors only focused on criticism of current PPP policy goals in the Nordic countries. The analysis is also limited to seven issues and can only scratch the surface concerning the significance of the remaining 14 issues. For instance, just because current research (2015–2021) does not mention education, pollution, and water, it does not imply that PPPs are avoiding these issues.

Our article has some implications that need to be addressed by future research. Firstly, the research community needs to know if PPP has the necessary and sufficient institutions to go from potentiality to actuality and from being an isolated problem-solver to becoming a systematic and inclusive player, an *avant-garde*, in tackling urban unsustainability. Secondly, it is important to determine what facilitates or hinders the movement of PPP towards sustainability. In essence, what will it take for the stakeholders that constitute PPP to get on-board and engage in the process of enabling a transition toward a more sustainable future city? Finally, future research is recommended to find more ways to apply the DE model to the varying contexts of the city and support the transition toward a sustainable urban development.

Author Contributions: Both authors have made a substantial contribution to the conception and design of the work as well as the acquisition, analysis, and interpretation of data for the work. We have also been involved in drafting and reviewing the work critically. We give our final approval of this version to be published. We agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. In more detail: conceptualization T.F. and J.M., methodology and software, J.M.; writing—original draft preparation, supervision and validation T.F., formal analysis, review and editing T.F. and J.M. All authors have read and agreed to the published version of the manuscript.

Funding: This work has been carried out under the auspices of the industrial post-graduate school Future Proof Cities (grant number 2019-0129), which is financed by the Knowledge Foundation (KK-stiftelsen). We kindly thank the funding bodies for their financial support.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Acknowledgments: We would like to thank Rana Mostaghel, Lars Lindbergh, Carin Nordström, and the DEM-group at Mälardalen University for sharing their expertise and knowledge and commenting on drafts of the paper.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Bai, X.; Dawson, R.J.; Ürge-Vorsatz, D.; Delgado, G.C.; Barau, A.S.; Dhakal, S.; Roberts, D. Six research priorities for cities and climate change. *Nature* **2018**, *555*, 23–25. [[CrossRef](#)]
- Tanguay, G.A.; Rajaonson, J.; Lefebvre, J.-F.; Lanoie, P. Measuring the sustainability of cities: An analysis of the use of local indicators. *Ecol. Indic.* **2010**, *10*, 407–418. [[CrossRef](#)]
- Chan, P. Assessing Sustainability of the Capital and Emerging Secondary Cities of Cambodia Based on the 2018 Commune Database. *Data* **2020**, *5*, 79. [[CrossRef](#)]
- Steffen, W.; Richardson, K.; Rockstrom, J.; Cornell, S.E.; Fetzer, I.; Bennett, E.M.; Biggs, R.; Carpenter, S.R.; de Vries, W.; de Wit, C.A.; et al. Sustainability. Planetary boundaries: Guiding human development on a changing planet. *Science* **2015**, *347*, 1259855. [[CrossRef](#)] [[PubMed](#)]
- Raworth, K. A Doughnut for the Anthropocene: Humanity's compass in the 21st century. *Lancet Planet. Health* **2017**, *1*, e48–e49. [[CrossRef](#)]
- Fobbe, L. Analysing Organisational Collaboration Practices for Sustainability. *Sustainability* **2020**, *12*, 2466. [[CrossRef](#)]
- Lozano, R. Collaboration as a pathway for sustainability. *Sustain. Dev.* **2007**, *15*, 370–381. [[CrossRef](#)]
- Pero, M.; Moretto, A.; Bottani, E.; Bigliardi, B. Environmental collaboration for sustainability in the construction industry: An exploratory study in Italy. *Sustainability (Switzerland)* **2017**, *9*, 125. [[CrossRef](#)]
- Loorbach, D.; Wijsman, K. Business transition management: Exploring a new role for business in sustainability transitions. *J. Clean. Prod.* **2013**, *45*, 20–28. [[CrossRef](#)]
- Rockström, J.; Steffen, W.; Noone, K.; Persson, Å.; Chapin III, F.S.; Lambin, E.; Lenton, T.M.; Scheffer, M.; Folke, C.; Schellnhuber, H.J. Planetary boundaries: Exploring the safe operating space for humanity. *Ecol. Soc.* **2009**, *14*. [[CrossRef](#)]
- Hoorweg, D.; Hosseini, M.; Kennedy, C.; Behdadi, A. An urban approach to planetary boundaries. *Ambio* **2016**, *45*, 567–580. [[CrossRef](#)]
- Boffey, D. *Amsterdam to Embrace 'Doughnut' Model to Mend Post-Coronavirus Economy*; The Guardian: London, UK, 2020; Volume 8.
- Luukkanen, J.; Vehmas, J.; Kaivo-Oja, J. Quantification of Doughnut Economy with the Sustainability Window Method: Analysis of Development in Thailand. *Sustainability* **2021**, *13*, 847. [[CrossRef](#)]
- Roy, A.; Basu, A.; Dong, X. Achieving Socioeconomic Development Fuelled by Globalization: An Analysis of 146 Countries. *Sustainability* **2021**, *13*, 4913. [[CrossRef](#)]
- Saunders, A.; Luukkanen, J. Sustainable development in Cuba assessed with sustainability window and doughnut economy approaches. *Int. J. Sustain. Dev. World Ecol.* **2021**, 1–11. [[CrossRef](#)]
- Osei-Kyei, R.; Chan, A.P.C. Review of studies on the Critical Success Factors for Public–Private Partnership (PPP) projects from 1990 to 2013. *Int. J. Proj. Manag.* **2015**, *33*, 1335–1346. [[CrossRef](#)]
- Hodge, G.A.; Greve, C. On Public–Private Partnership Performance. *Public Works Manag. Policy* **2016**, *22*, 55–78. [[CrossRef](#)]
- OECD. *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*; Organisation for Economic Co-operation and Development (OECD): Paris, France, 2008.
- Osei-Kyei, R.; Chan, A.P. Perceptions of stakeholders on the critical success factors for operational management of public-private partnership projects. *Facilities* **2017**, *35*, 21–38. [[CrossRef](#)]
- Opawole, A.; Jagboro, G.O.; Kajimo-Shakantu, K.; Olojede, B.O. Critical performance factors of public sector organizations in concession-based public-private partnership projects. *Prop. Manag.* **2019**, *37*, 17–37. [[CrossRef](#)]
- Ameyaw, E.E.; Chan, A.P. Critical success factors for public-private partnership in water supply projects. *Facilities* **2016**, *34*, 124–160. [[CrossRef](#)]
- Cheung, E.; Chan, A.P.; Kajewski, S. Factors contributing to successful public private partnership projects: Comparing Hong Kong with Australia and the United Kingdom. *J. Facil. Manag.* **2012**, *10*, 45–58. [[CrossRef](#)]
- Parashar, D. The Government's role in private partnerships for urban poor housing in India. *Int. J. Hous. Markets Anal.* **2014**, *7*, 524–538. [[CrossRef](#)]
- Ameyaw, E.E.; Chan, A.P. Evaluating key risk factors for PPP water projects in Ghana: A Delphi study. *J. Facil. Manag.* **2015**, *13*, 133–155. [[CrossRef](#)]
- Babatunde, S.O.; Opawole, A.; Akinsiku, O.E. Critical success factors in public-private partnership (PPP) on infrastructure delivery in Nigeria. *J. Facil. Manag.* **2012**, *10*, 212–225. [[CrossRef](#)]
- Alteneiji, K.; Alkass, S.; Abu Dabous, S. Critical success factors for public–private partnerships in affordable housing in the United Arab Emirates. *Int. J. Hous. Mark. Anal.* **2019**, *13*, 753–768. [[CrossRef](#)]
- Kavishe, N.; Chileshe, N. Critical success factors in public-private partnerships (PPPs) on affordable housing schemes delivery in Tanzania. *J. Facil. Manag.* **2019**, *17*, 188–207. [[CrossRef](#)]
- Trangkanont, S.; Charoenngam, C. Private partner's risk response in PPP low-cost housing projects. *Prop. Manag.* **2014**, *32*, 67–94. [[CrossRef](#)]
- Jegade, F.O.; Adewale, B.A.; Jesutofunmi, A.A.; Loved, K.S. Assessment of Residential Satisfaction for Sustainability in Public-Private Partnerships (PPPs) Housing Estates in Lagos State, Nigeria. In Proceedings of the IOP Conference Series: Earth and Environmental Science, Covenant University, Ota, Nigeria, 23–20 June 2020.
- Della Spina, L.; Calabrò, F.; Rugolo, A. Social housing: An appraisal model of the economic benefits in Urban regeneration programs. *Sustainability (Switzerland)* **2020**, *12*, 609. [[CrossRef](#)]

31. Kavishe, N.; Jefferson, I.; Chileshe, N. Evaluating issues and outcomes associated with public–private partnership housing project delivery: Tanzanian practitioners’ preliminary observations. *Int. J. Constr. Manag.* **2019**, *19*, 354–369. [[CrossRef](#)]
32. Shi, J.; Duan, K.; Wen, S.; Zhang, R. Investment valuation model of public rental housing PPP project for private sector: A real option perspective. *Sustainability (Switzerland)* **2019**, *11*, 1857. [[CrossRef](#)]
33. Lohri, C.R.; Camenzind, E.J.; Zurbrügg, C. Financial sustainability in municipal solid waste management—Costs and revenues in Bahir Dar, Ethiopia. *Waste Manag.* **2014**, *34*, 542–552. [[CrossRef](#)]
34. Nizkorodov, E. Evaluating risk allocation and project impacts of sustainability-oriented water public–private partnerships in Southern California: A comparative case analysis. *World Dev.* **2021**, *140*. [[CrossRef](#)]
35. Kivilä, J.; Martinsuo, M.; Vuorinen, L. Sustainable project management through project control in infrastructure projects. *Int. J. Proj. Manag.* **2017**, *35*, 1167–1183. [[CrossRef](#)]
36. Fraser, J.C. Beyond Gentrification: Mobilizing Communities and Claiming Space. *Urban Geogr.* **2004**, *25*, 437–457. [[CrossRef](#)]
37. Siemiatycki, M. Urban Transportation Public–Private Partnerships: Drivers of Uneven Development? *Environ. Plan. A Econ. Space* **2011**, *43*, 1707–1722. [[CrossRef](#)]
38. Smith, S.L. Devising environment and sustainable development indicators for Canada. *Corp. Environ. Strategy* **2002**, *9*, 305–310. [[CrossRef](#)]
39. Polk, M. Institutional capacity-building in urban planning and policy-making for sustainable development: Success or failure? *Plan. Pract. Res.* **2011**, *26*, 185–206. [[CrossRef](#)]
40. Thörn, C.; Holgersson, H. Revisiting the urban frontier through the case of New Kvillebäcken, Gothenburg. *City* **2016**, *20*, 663–684. [[CrossRef](#)]
41. Gray, B.; Purdy, J. Collaborating for Our Future: Multistakeholder Partnerships for Solving Complex Problems. Oxford University Press: Oxford, UK, 2018.
42. Hagbert, P.; Malmqvist, T. Actors in transition: Shifting roles in Swedish sustainable housing development. *J. Hous. Built Environ.* **2019**, *34*, 697–714. [[CrossRef](#)]
43. Xiao, Y.; Watson, M. Guidance on Conducting a Systematic Literature Review. *J. Plann. Educ. Res.* **2019**, *39*, 93–112. [[CrossRef](#)]
44. Moher, D.; Shamseer, L.; Clarke, M.; Ghersi, D.; Liberati, A.; Petticrew, M.; Shekelle, P.; Stewart, L.A. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Syst. Rev.* **2015**, *4*, 1. [[CrossRef](#)] [[PubMed](#)]
45. Malek, J.A.; Lim, S.B.; Yigitcanlar, T. Social Inclusion Indicators for Building Citizen-Centric Smart Cities: A Systematic Literature Review. *Sustainability* **2021**, *13*, 376. [[CrossRef](#)]
46. Liberati, A.; Altman, D.G.; Tetzlaff, J.; Mulrow, C.; Gøtzsche, P.C.; Ioannidis, J.P.A.; Clarke, M.; Devereaux, P.J.; Kleijnen, J.; Moher, D. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *J. Clin. Epidemiol.* **2009**, *62*, e1–e34. [[CrossRef](#)]
47. Grundström, K.; Molina, I. From Folkhem to lifestyle housing in Sweden: Segregation and urban form, 1930s–2010s. *Int. J. Hous. Policy* **2016**, *16*, 316–336. [[CrossRef](#)]
48. Baeten, G.; Westin, S.; Pull, E.; Molina, I. Pressure and violence: Housing renovation and displacement in Sweden. *Environ. Plan. A Econ. Space* **2017**, *49*, 631–651. [[CrossRef](#)]
49. Ouzzani, M.; Hammady, H.; Fedorowicz, Z.; Elmagarmid, A. Rayyan—A web and mobile app for systematic reviews. *Syst. Rev.* **2016**, *5*, 1–10. [[CrossRef](#)]
50. Olsson, J.A.; Brunner, J.; Nordin, A.; Hanson, H.I. A just urban ecosystem service governance at the neighbourhood level—perspectives from Sofielund, Malmö, Sweden. *Environ. Sci. Policy* **2020**, *112*, 305–313. [[CrossRef](#)]
51. Hyötyläinen, M.; Haila, A. Entrepreneurial public real estate policy: The case of Eiranranta, Helsinki. *Geoforum* **2018**, *89*, 137–144. [[CrossRef](#)]
52. Noring, L.; Struthers, D.; Grydehøj, A. Governing and financing affordable housing at the intersection of the market and the state: Denmark’s private non-profit housing system. *Urban Res. Pract.* **2020**, 1–17. [[CrossRef](#)]
53. Braun, V.; Clarke, V. Using thematic analysis in psychology. *Qual. Res. Psychol.* **2006**, *3*, 77–101. [[CrossRef](#)]
54. Borgström, S. Balancing diversity and connectivity in multi-level governance settings for urban transformative capacity. *Ambio* **2019**, *48*, 463–477. [[CrossRef](#)]
55. Sørensen, E.; Torfing, J. Co-creating ambitious climate change mitigation goals: The Copenhagen experience. *Regul. Gov.* **2020**. [[CrossRef](#)]
56. Bonow, M.; Normark, M. Community gardening in Stockholm: Participation, driving forces and the role of the municipality. *Renew. Agric. Food Syst.* **2018**, *33*, 503–517. [[CrossRef](#)]
57. Glaas, E.; Hjerpe, M.; Storbjörk, S.; Neset, T.-S.; Bohman, A.; Muthumanickam, P.; Johansson, J. Developing transformative capacity through systematic assessments and visualization of urban climate transitions. *Ambio* **2019**, *48*, 515–528. [[CrossRef](#)] [[PubMed](#)]
58. Lidegaard, C.; Nuccio, M.; Bille, T. Fostering and planning urban regeneration: The governance of cultural districts in Copenhagen. *Eur. Plann. Stud.* **2018**, *26*, 1–19. [[CrossRef](#)]
59. Fors, H.; Nielsen, A.B.; van den Bosch, C.C.K.; Jansson, M. From borders to ecotones—Private-public co-management of urban woodland edges bordering private housing. *Urban For. Urban Green.* **2018**, *30*, 46–55. [[CrossRef](#)]
60. Elander, I.; Gustavsson, E. From policy community to issue networks: Implementing social sustainability in a Swedish urban development programme. *Environ. Plan. C Politics Space* **2019**, *37*, 1082–1101. [[CrossRef](#)]

61. Candel, M.; Karrbom Gustavsson, T.; Eriksson, P.-E. Front-end value co-creation in housing development projects. *Constr. Manage. Econ.* **2021**, *39*, 245–260. [[CrossRef](#)]
62. Hermelin, B.; Jonsson, R. Governance of waterfront regeneration projects: Experiences from two second-tier cities in Sweden. *Int. J. Urban Reg. Res.* **2021**, *45*, 266–281.
63. Puustinen, T.L.M.; Viitanen, K.J. Infill development on collectively owned residential properties: Understanding the decision-making process—Case studies in Helsinki. *Hous. Theory Soc.* **2015**, *32*, 472–498. [[CrossRef](#)]
64. Valli, C.; Hammami, F. Introducing Business Improvement Districts (BIDs) in Sweden: A social justice appraisal. *Eur. Urban Reg. Stud.* **2021**, *28*, 155–172. [[CrossRef](#)]
65. la Cour, A.; Andersen, N.A. Metagovernance as strategic supervision. *Public Perform. Manag. Rev.* **2016**, *39*, 905–925. [[CrossRef](#)]
66. Smedby, N.; Quitzau, M.B. Municipal governance and sustainability: The role of local governments in promoting transitions. *Environ. Policy Gov.* **2016**, *26*, 323–336. [[CrossRef](#)]
67. Berglund-Snodgrass, L.; Högström, E.; Fjellfeldt, M.; Markström, U. Organizing cross-sectoral housing provision planning: Settings, problems and knowledge. *Eur. Plann. Stud.* **2020**, 1–21. [[CrossRef](#)]
68. Juhola, S.; Seppälä, A.; Klein, J. Participatory experimentation on a climate street. *Environ. Policy Gov.* **2020**, *30*, 373–384. [[CrossRef](#)]
69. Gohari, S.; Baer, D.; Nielsen, B.F.; Gilcher, E.; Situmorang, W.Z. Prevailing approaches and practices of citizen participation in smart city projects: Lessons from Trondheim, Norway. *Infrastructures* **2020**, *5*, 36. [[CrossRef](#)]
70. Noring, L. Public asset corporation: A new vehicle for urban regeneration and infrastructure finance. *Cities* **2019**, *88*, 125–135. [[CrossRef](#)]
71. Schultz Larsen, T.; Delica, K.N. Territorial Destigmatization in An Era Of Policy Schizophrenia. *Int. J. Urban Reg. Res.* **2021**, *45*, 423–441. [[CrossRef](#)]
72. Andersen, B.; Eline Ander, H.; Skrede, J. The directors of urban transformation: The case of Oslo. *Local Econ.* **2020**, *35*, 695–713. [[CrossRef](#)]
73. Richner, M.; Olesen, K. Towards business improvement districts in Denmark: Translating a neoliberal urban intervention model into the Nordic context. *Eur. Urban Reg. Stud.* **2019**, *26*, 158–170. [[CrossRef](#)]
74. Storbjörk, S.; Hjerpe, M.; Glaas, E. Using public–private interplay to climate-proof urban planning? Critical lessons from developing a new housing district in Karlstad, Sweden. *J. Environ. Plann. Manag.* **2019**, *62*, 568–585. [[CrossRef](#)]
75. Gustavsson, E.; Elander, I. Sustainability potential of a redevelopment initiative in Swedish public housing: The ambiguous role of residents’ participation and place identity. *Progress Plan.* **2016**, *103*, 1–25. [[CrossRef](#)]
76. Stopper, M.; Kossik, A.; Gastermann, B. Development of a sustainability model for manufacturing SMEs based on the innovative doughnut economics framework. In Proceedings of the International MultiConference of Engineers and Computer Scientists, Hongkong, China, 16–18 March 2016; pp. 16–18.
77. Hartmann, T.; Jehling, M. From diversity to justice—Unraveling pluralistic rationalities in urban design. *Cities* **2019**, *91*, 58–63. [[CrossRef](#)]
78. Shahab, S.; Hartmann, T.; Jonkman, A. Strategies of municipal land policies: Housing development in Germany, Belgium, and Netherlands. *Eur. Plann. Stud.* **2021**, *29*, 1132–1150. [[CrossRef](#)]
79. Durán, A.P.; Green, J.M.H.; West, C.D.; Visconti, P.; Burgess, N.D.; Virah-Sawmy, M.; Balmford, A. A practical approach to measuring the biodiversity impacts of land conversion. *Methods Ecol. Evol.* **2020**, *11*, 910–921. [[CrossRef](#)]
80. Evans, M.C.; Carwardine, J.; Fensham, R.J.; Butler, D.W.; Wilson, K.A.; Possingham, H.P.; Martin, T.G. Carbon farming via assisted natural regeneration as a cost-effective mechanism for restoring biodiversity in agricultural landscapes. *Environ. Sci. Policy* **2015**, *50*, 114–129. [[CrossRef](#)]
81. Shen, L.-Y.; Ochoa, J.J.; Shah, M.N.; Zhang, X. The application of urban sustainability indicators—A comparison between various practices. *Habitat Int.* **2011**, *35*, 17–29. [[CrossRef](#)]
82. Petersson, O. *Statsbyggnad: Den Offentliga Maktens Organisation*; Studentlitteratur: Lund, Sweden, 2018.
83. Broman, G.I.; Robèrt, K.-H. A framework for strategic sustainable development. *J. Clean. Prod.* **2017**, *140*, 17–31. [[CrossRef](#)]
84. Mang, P.; Reed, B. Regenerative development and design. *Sustain. Built Environ.* **2020**, 115–141. [[CrossRef](#)]
85. Winston, N.; Eastaway, M.P. Sustainable housing in the urban context: International sustainable development indicator sets and housing. *Soc. Indic. Res.* **2008**, *87*, 211–221. [[CrossRef](#)]
86. Burton, E. Housing for an urban renaissance Implications for social equity. *Hous. Stud.* **2003**, *18*, 537–562. [[CrossRef](#)]
87. Chau, C.K.; Yik, F.; Hui, W.; Liu, H.; Yu, H. Environmental impacts of building materials and building services components for commercial buildings in Hong Kong. *J. Clean. Prod.* **2007**, *15*, 1840–1851. [[CrossRef](#)]
88. Bibri, S.E.; Krogstie, J.; Kärrholm, M. Compact city planning and development: Emerging practices and strategies for achieving the goals of sustainability. *Dev. Built Environ.* **2020**, *4*, 100021. [[CrossRef](#)]