Eco Cities (2022) Volume 3 Issue 2, *20 pages*.
doi: 10.54517/ec.v3i2.1840

Asia Pacific
Academy of Science Pte. Ltd.

REVIEW ARTICLE

Sustainability, planning and urban development: Seek key integration by studying recent cases

Francisco Sergio Campos-Sánchez[1*], Francisco Javier Abarca-Álvarez[1], Alvaro Domingues[2]

*[*1] Departamento de Urbanística y Ordenación del Territorio, Universidad de Granada, Granada 504008, Spain. E-mail: scampos@ugr.es*

[2] Centro de Estudos de Arquitectura e Urbanismo, Universidade do Porto, Porto 999022, Portugal.

ABSTRACT

Objective: The application of sustainable development in urban planning and development is a key issue in the management and practice of urbanization in academic and professional circles. Although its importance has been recognized separately, there is now a need for an integrated discussion on planning, urban development, and sustainability. The purpose is to clarify their meaning and explore their compatibility space and limitations, which increases knowledge in this field. **Methodology:** Through the systematic study of specific literature, this paper makes a critical study of the recent cases of the interaction of these terms, focusing on the diversity of their methods and materials. The complexity of achieving sustainable urban planning and development is emphasized and discussed. **Result:** The results show that people are more and more interested in the research in this field. Cities can be one of the most advantageous areas for addressing ecological issues through strategic, multi-scale, innovative, visionary, and educational planning, derived from participatory processes, assessed by indicators, and agreed upon by stakeholders at all levels. **Originality:** In order to clarify these mechanisms, suggestions for further research are also put forward.

Keywords: sustainable urbanization; strategic planning; ecological urbanism; critical research

1. Introduction

In recent years, the term "sustainable" has been applied in almost any field of knowledge, especially in urban disciplines. This is a term with many definitions and meanings that have greatly expanded in recent years. David Harvey, a famous geographer and social theorist, believes that sustainability can mean almost anything anyone wants. The adjective "sustainable" is also unnecessary because, in principle, no one agrees with unsustainability, passive and static, because it is essentially a self-centered term, a rhetorical and ambiguous discourse, because it is undefined unless it contrasts with the idea of who we want to be. He believes that what we really need is to actively change our relationship with nature through transformative policies based on the anti-capitalist social movement[1,2]. Other key references in urban design practice, such as Rem Koolhaas, talk about the changing trend in people's understanding of human development on earth[3]. If the world was divided into things that led to modernity and things that hindered modernity since the

ARTICLE INFO
Received: May 5, 2022 | Accepted: June 10, 2022 | Available online: July 26, 2022

CITATION
Campos-Sánchez FS, Abarca-Álvarez FJ, Domingues A. Sustainability, planning and urban development: Seek key integration by studying recent cases. Eco Cities 2022; 3(2): 20 pages.

Enlightenment, it is now divided into sustainability and unsustainability.

Achieving sustainable development has become an important goal for planners, scholars, and policy-makers. Although many literary works have emerged around this concept recently, it is still complex and difficult to achieve[4]. In 1987, the World Commission on Environment and Development (WCED) determined that the central goal of sustainable development was intergenerational equity. In order to help countries, achieve that goal, the Commission worked to weave social values to meet the challenges associated with reducing excessive consumption and extreme poverty. These values are often referred to as the "Three E" theory of sustainable development: Environment, Economy, and Equity. Therefore, we must focus on issues that include environmental, economic, equity, or social dimensions. Some authors have added a fourth dimension to these issues: participatory governance[5,6]. All these aspects are also at the core of the current urban planning discipline. Therefore, it is recognized that planning, urban development, and sustainability can be integrated.

Sustainable development is a simple concept from the beginning: present and future generations must strive to achieve a minimum and appropriate standard of living for all inhabitants of the earth within the limits set by the natural system. Despite its simplicity, there is no consensus on how to translate this concept into practice. Although this concept is increasingly used to guide planning[7,8], its application is not obvious.

The main purpose of this paper is to review and discuss the most relevant terms, trends, and case studies handled by academia in recent years that are aimed at achieving sustainability. This work mainly focuses on the following topics: urban planning, urban growth forms, and indicator evaluation. It also sought a comprehensive discussion of them in order to clarify the complexity of their relationship, which has so far only been biased. Finally, the discussion part criticizes some of the problems related to other fields (politics and economy) and the current mediocrity of its meaning. This includes a review of impact publications and recent case studies on sustainable urban planning and development.

This work first introduces the current situation of the problem and then explains the method used. Subsequently, the findings outline the progress made and the problems solved based on case studies. Finally, the discussion and conclusions include the key and cross-cutting aspects of the issues involved, as well as suggestions on the direction of future research.

As the concept of sustainability matures, the pursuit of sustainability at the urban level has become increasingly popular[6]. Therefore, instead of being a problem, cities may be one of the most beneficial areas to solve ecological problems. One of the most influential factors in putting forward this proposition is the city as a population center. The population is a multiplier for all other factors, including increasing energy, climate, water, food, biodiversity, health, and economic unsustainability[9]. Therefore, cities are at the center of sustainability and climate change, which is the specific urban goal recently set in the United Nations Sustainable Development Goals[10].

How to improve the quality of life for the urban population is a crucial issue. But what tools do we have? The answer is to develop a sustainable urban development plan that combines policy decisions with strategic actions in the field of sustainable development[5].

This kind of planning is innovative because the reality of climate change has brought uncertainty to planners, so it is necessary to revise traditional planning. Therefore, planning to bring cities closer to sustainability is emerging[11].

After the next methodological paragraph, two terms will be described: urban and sustainable planning.

2. Methodology

2.1. Selection of references

The literature review of the research object is carried out by systematically searching the references in the following steps:

1) Influence magazine selection. Visit the ISI Web of Knowledge. *Journal Citation Reports.* Database: *JCR Social Sciences Edition 2013.* Selection of periodical groups classified by subject. Selected category: *Planning & Development.* Search journals according to influencing factors. Select the journals in the first quartile (Q1) and the second quartile (Q2), with a total of 28 journals (1–13 in Q1 and 14–28 in Q2) to check enough bibliographic sources to ensure relevant research results. In addition, some journals belonging to the lower quartile are included, but there are research-related articles on the science website.

2) Selection of relevant references. Access the search engine database. The search criteria consisted of adding the name of each journal selected in the previous step to one field and entering "sustain*" more "urban" or "planning" or "development" in other fields during the period 2009–2017 (both included).

3) Reference filtering. References irrelevant to this research have been excluded, after reviewing the title and abstract of all of them. Although most of them are journal articles, books, and some book reviews are also included.

4) Other incorporated references. Other fundamental publications on the subject of study have also been examined due to their high diffusion or number of citations, with the aim of constructing the work from a continuous discourse, linked to other periods, which has mainly taken place in the sections: introduction, state of the question and discussion.

Some other references include review articles related to the research object. (a) Articles on Sustainable Urban Renewal[12], and the information obtained from them are compared with the results of this paper. (b) Sustainability assessment methods [13]; (c) Kawakami research on the sustainable urban form of Asian cities; a number of urban practice studies from a multidisciplinary perspective[14]. (d) A critical review of various publications on the ten most relevant themes of sustainable development over the past five years[15] helped to identify the focus areas of this study and some of the case studies contained therein. (e) Current affairs citation analysis[16,17], reviewing influential references, authors, journals, and scientific disciplines in sustainable development literature.

This type of analysis enables us to find classical references, which are combined in this paper to provide continuity and coherence for the discussion of this paper. Other, more general revisions were also reviewed, such as the work carried out by the UC Institute for Urban and Regional Development. Berkeley is far away[18].

2.2. Review of selected bibliographies

This section briefly analyzes the last 101 references. **Table 1** shows how interest in the sustainability of urban planning and development fluctuated during the central period of the study (2009–2014). Overall, the number of published and selected impact references has increased in recent years (75 of 92): slightly increased in 2009 (15%) and 2010 (17%), bumped in 2011 (8%) and 2014 (12%), and significantly increased in 2012 (23%) and 2013 (25%). Finally, in order to update the work, new references published during 2015–2017 were included, and a total of 101 relevant publications were obtained. **Table 2** shows the distribution of 101 references selected according to the main revised impact journals (69%) and other journals (31%).

Table 1. Distribution of selected references from 2009 to 2017 (both included)

Year	Number of references selected
2009	11
2010	13
2011	6
2012	17
2013	19
2014	9
2015	2
2016	5
2017	2
Other years	17
Total	101

Table 2. The distribution of references affecting the selection of Periodicals

Source	Number of references selected
Planning progress	4
Journal of the American Planning Association	14
Journal of Regional Science	3
International Journal of urban and Regional Studies	6
Habitat International	14
Journal of planning education and research	11
Journal of planning literature	3
Planning theory	1
European Planning Research	12
Sustainability	2
Other	31
Total	101

3. Sustainable city

Today, the development of modern cities is unprecedented in the history of urbanization. With this growth, urban environmental problems are also increasing. In 2007, it was estimated that 50% of the world's population was urban. It was also predicted that by the end of the first decade of the 21st century, there would be more people living in cities than outside them. By 2050, they will have reached two-thirds of the world's population. Similarly, by the last day, if we do not transition to a low-carbon city, our average earth temperature will reach 28 °C. Another important factor regarding the decisive role of cities in climate change is greenhouse gas emissions. These emissions account for 80% of these emissions, which lead to global warming due to their construction and management processes. For all these reasons, action in cities is crucial: Global Sustainability cannot be achieved without sustainable urbanization[19].

The revised source provides some definitions of sustainable cities (see **Figure 1**). According to the actions being taken, one of the principles of sustainable cities is to promote an operational perspective on sustainability. In other words, some cities take sustainability "more seriously" than others. For example, in the United States, U.S.A. of the 55 major cities analyzed, 38 did so[6]. In this regard, larger cities and cities with larger populations are more likely to do so[21], and even the policies incorporated in the process of achieving sustainability name their future urban scenarios, creating specific challenges, such as Chicago metropolitan 2020, future Melbourne, imagine Calgary[22], or New York City 2030. Sustainable cities are also cities that undertake mitigation processes based on the creation of sustainable future urban scenarios through citizen participation processes[23].

Quantitatively speaking, sustainable cities refer to those cities that consciously involve all systems of the whole system, including transportation, construction, economy, and governance, and have a small ecological footprint[24].

Some authors note the clear definition of a sustainable city: A city that solves ecological problems because global sustainability cannot be achieved without sustainable urbanization[25], or, as Campbell said, a city that enjoys planning organized through the principles of sustainability[26].

Other authors tend to describe it. The more resilient a city is, the more sustainable it is, because the more adaptable it is to the consequences of climate change, the less vulnerable it is to climate change[9,27]. They are the most centralized and integrated cities[28]. Cities that transition to low-carbon cities, enjoy environmental awareness integrated into social values and standards, and grow economically[29].

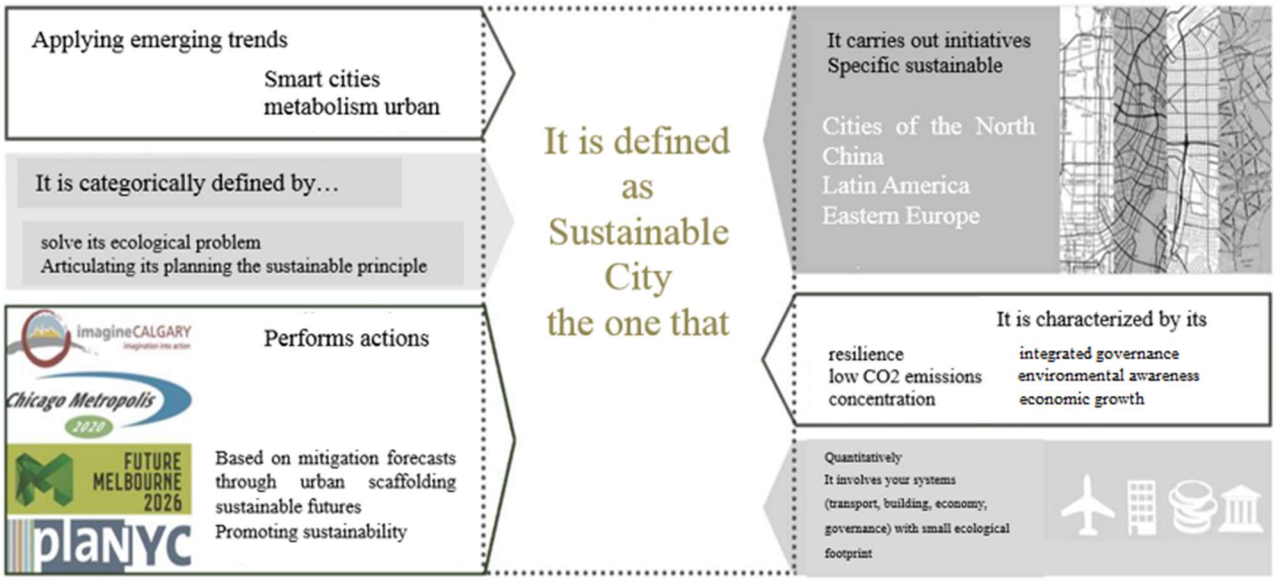

Figure 1. Sustainable cities: Definitions and initiatives.

Urban sustainability initiatives must be targeted at each city, as they depend on a particular social, political, or historical context. Their nature is specific in each case[30]. In this sense, from the perspective of other cities in the world, northern cities (Chicago, Los Angeles, London, Paris) are not only ideal. In terms of identity and social cohesion, we have found sustainability in every unique place in China, in daily negotiations and social proximity in Central American and Eastern European cities, and in clearance space and "breathing" corridors in Delhi (India).

One of the most recent trends is to link sustainability to smart cities[31]. Due to the progress of information technology, as Kevin Ashton of MIT said in the book *The Internet of Things*, the concept of a smart city has the potential to improve the efficiency of urban systems and meet the challenges of sustainability through the development of innovative and intelligent solutions and transparent and inclusive governance. At present, this expert knowledge of the city will be a supplement to the most supported view of the city in traditional urban culture, which is conducive to the democratization of daily life and views in streets and parks. This is a paper written by Jane Jacobs and others since the 1960s.

Finally, it is worth mentioning that they believe that it is more appropriate to assess a city's contribution to sustainable development than to assess whether a city is sustainable. This issue involves urban metabolism, that is, assessing the amount of resources produced and consumed by urban ecosystems. We found a good example in Curitiba. In the first decade of the 1970s, Curitiba had a higher rate of return on resources. 21 shows improved living conditions and socio-economic improvements[32].

4. Sustainability, integrated urban planning and development

Campbell's definition of sustainability in 1996 was "attracting current urban planning issues". This definition is still valid and has attracted the attention of public administration departments, planners, and researchers. A key concept to consider is "ecological footprint", which is defined in the revised literature as the total amount of resources consumed to maintain the urban population.

Many authors estimate that in this century, the size and population of urban areas will grow, as will their basic needs, including health, safety, efficiency, places attractive to citizens, work, and entertainment. Within the framework of urban planning and development, this, in turn, requires air and water quality, energy conservation, walking, multimodal

transport, green space, social inclusion, and economic success, which are sustainable in nature. When the ecological footprint is the smallest, the balance between citizens' needs and available resources is reached (see **Figure 2**). However, traditional urban planning and development lack the tools needed to achieve this goal. They need to be redefined to encourage the integration of sustainability principles in this area. Although this is a difficult task, it is also a goal worthy of effort[33]. Especially in countries like the United States. U.S.A., where there are serious multi-level political tensions between economic growth and sustainable development.

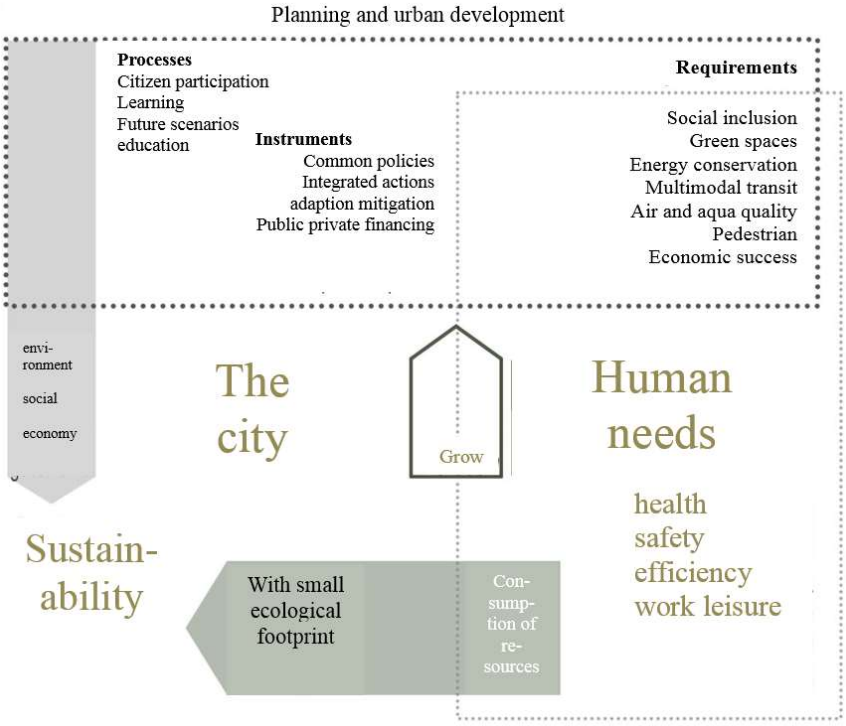

Figure 2. Sustainability, integrated urban planning and development.

The model of an environmentally sound city with social justice and economic growth is the basic pillar of sustainability. It constitutes a simple triangular model that can combine different priorities in traditional urban planning and development. In fact, the main goal of sustainable urban planning and development is to develop social capital[34] and provide appropriate indicators at four different levels of environment, society, economy, and governance to achieve the quality of urban life. To this end, it requires common policies, integrated action among different stakeholders[29,35], and public and private financing[36], as well as the development of citizen participation processes driven by local governments[4], which use tools such as Local Agenda 21.

Another issue related to these terms relates to the different ways in which societies respond to climate change. It includes processes that promote planning, urban development, and sustainability in an integrated manner. These are adaptation, related to resilience or endurance, which is the ability of nature to absorb the impact, and mitigation measures to mitigate the impact based on reducing the impact. Their analysis and review depend on the processes of participation, learning, education, and the construction of future scenarios[23].

As mentioned earlier, many studies use integration as a keyword between planning, urban development, and sustainability. Its added value is greater than the sum of its parts. Some of these recommendations combine sustainability policies or aspirations with their regulatory frameworks. These efforts and the integrated vision of these efforts achieved through planning have been translated into a strong desire for big cities, such as Copenhagen carbon neutral 2025, according to the ranking of

Metropolis Magazine. Copenhagen was the most livable city in the world in 2016.

5. Sustainable urbanization planning

Until recently, researchers in urban planning and development have rarely noticed that sustainability is a problem that needs to be solved to a great extent. The existing literature on this subject rarely discusses the potential and difficulties of this emerging planning. The scale and issues addressed in the context of sustainability are multifaceted. In addition, it has been found that this depends not only on individual behavior. Guidelines on how to achieve this goal are crucial, as urban planning does[37].

Several aspects of sustainable climate change planning need to be addressed. The core problem to be solved (the generation of greenhouse gases) is a highly technical problem that needs to deal with very specific data from natural science and climate science and have a more subtle understanding of the risks that traditional planning tools may bring to us. Therefore, since climate change is a new challenge, we can assume that policies and actions to address climate change are also new or innovative[38].

Therefore, sustainable urbanization planning has the potential to minimize the threat of climate change. This goal will be more successfully achieved if such planning is coordinated within a strategic framework driven by a policy-making system that combines local perspectives with scientific knowledge[39]. It is in the most decisive fast-growing countries that sustainable urbanization can become a contradiction.

In order to correct the latter situation, such planning must be multi-scale[40], because the strategic actions contained in large-scale planning must be combined with the decisions of small-scale planning. The scale of sustainable development plan management and its countermeasures must match the scale of the problems to be solved.

Due to a wide range of issues (such as equity, landscape protection, economic development, and response to climate change), regional planning needs to be carried out with the support of governance[41]. This plan is of great significance in the rapidly developing metropolis. In these documents, we find that there are inconsistencies and mismatches between them and their administrative boundaries. These boundaries do not belong to these fields, but belong to other fields, but are separated due to the existence of boundaries between them. That is why higher planning is needed, including for other minors, without administrative boundaries, to improve the sustainable adaptation and living conditions of the territory. Its main issues relate to infrastructure, land use, water, and protection[42].

In fast-growing megacities, the use of cars is encouraged in peripheral areas with low density, large areas, low land use intensity, and a lack of sustainable transportation, which in turn increases the gas emissions affecting climate change. This situation is aggravated by the improvement in the degree of autonomy of local governments and the lack of unified standards. Regional planning means introducing stronger urban development management measures to control urban development and promote sustainable transportation. Similarly, in order to maintain the cohesion of large and small territories and avoid the loss of certain landscapes, in the first case[43], multi-level territorial governance at the administrative and planning levels is required, and in the second case, strategies need to be developed at the local and supralocal levels.

Therefore, sustainable planning should consider the following factors: It must have an impact on political decision-making. It must be ambitious at multiple levels, not just a tool for gathering information. It must chart the way for the achievement of previously agreed goals. Its main goal is to develop social capital. In addition, it must be strategic in order to harmonize standards between public and private. Articulate values and priorities. Managing environmental resources and social change.

Adjust the housing stock according to the income level (size, density, size, comfort). Properly link population growth and land expansion with the reduction of available resources[34,44].

6. Ways of sustainable urban growth

In the revised literature, the composition of cities is widely recognized as two distinct but interdependent regions: the central region, or debris, with dense morphology; and the surrounding areas of the city, which are scattered and composed of independent fragments. According to the characteristics of each type of region, the relationship between the positive and negative aspects of the scope of sustainability is determined. In general, it emphasizes that when development and planning promote a dense and compact urban structure close to sustainability: reduce traffic greenhouse gas emissions, limit building energy consumption, reduce the consumption of free and agricultural space around cities[45], promote social development and make better use of free zones and gardens[46]. This reality has led some authors to advocate the same planning type as compact cities in suburban areas because the development of these two areas is closely related[47,48]. However, we also found some problems. The tension between compact and healthy urban planning is emerging. In some cities in northern Europe (Oslo), this is assessed by the heart attack index. Other conflicts focus on the combination of intensive urbanization and nature, because the former is carried out without control or coordination, and the environmental motivation is very low. The urbanization of the first coastline along the Mediterranean coast over the past three decades is an example[49].

About the medium-sized city size and building size of these two regions, the reference, as a model of sustainability, can draw lessons from the formal community composition and design of buildings in early Europe and North America of S.S. 20. Compared with many more mediocre examples of blocks and building types recently developed in our city[40]. Interestingly, the study shows the relationship between urban and block debris size, percentage of mixed-use, planning, public space design, and sustainability. For example, research on several urban categories (neighborhood, region, city) in different countries proves this[50].

On the other hand, from the perspective of socio-economic and morphological complementarity, there are differences in economic, social, and environmental aspects between urban and rural areas due to their different dynamics, which may further expand in the future. One possible solution to this problem is to strengthen the business linkages between rural entrepreneurs and urban centers[51]. This will be possible because they can acquire some urban characteristics, such as knowledge and market, while taking advantage of their surrounding location (space cost), to avoid partial polarization, which is conducive to the concentration of economic activities only in cities.

From the perspective of urban morphology, the case studies of each country have their own particularities, mainly focusing on the Anglo Saxon world and the Asian continent. Let's look at some examples.

The planning model of the past few decades, based on the growth around dense and compact urban employment and service centers, to avoid different long-distance travel, and reduce car use by reducing road investment in favor of public transport, has been met in the UK, but oppositely in the United States. U.S.A. In the UK, 10% of the total available soil is constructed. 70% of new urban development plans fall within this 10% range. The situation was assessed in three major regions of the country. The greater South East (WSE), with 20 million people and its center in London, has developed strongly due to increased wealth and international migration. The industrial recession and population stagnation of the Tyne Garment City area (TWCR) with a population of 1 million, are becoming more and more influential. Cambridge subregion (CSR), 500,000 people, is characterized by a

knowledge economy[52]. It is worth mentioning that despite the efforts made by the country, the original environmental quality has been maintained in the natural evolution process from garden city to new town, but the "new city" must adapt to the development of cars. Taking Milton Keynes as an example, the development of cars is realized by introducing a network of fast-track networks[53].

Stateside. U.S.A. The focus of the study is to transform the country's traditional way of urbanizing (as shown in **Figure 3**) into sustainability[54]. The most notable studies are those organized around a series of sustainable urban planning rules. (a) Restoration of the tram. (b) Establish an interconnected street system to provide the distance between home and work. (c) Business services and schools are provided in pedestrian areas, with a walking time of no more than 5 min[55,56]. (d) Ensure diversity in housing types. (e) Provide a linked park system. (f) Promote intelligent infrastructure based on ecological and economic development.

Figure 3. California spread (izkeda.) Beijing suburb (dcha.).

In the context of China, sustainability issues are particularly prominent. These problems are characterized by large-area, low-density, and low land-use intensity peripheral areas, which are the characteristics of large cities such as Beijing (see **Figure 3**), which encourage the use of cars[57]. Other social problems include the lack of decent housing near the workplace, such as in Guangzhou, which provides solutions to these problems in order to increase the living density, organize them into clusters near the workplace, and connect them through public transport[58]. In the case of Hong Kong, only by improving its compactness and density conditions can urban growth be environmentally, socially, and economically sustainable[59].

In addition to these areas, in other individual cases such as Gaza[60], the problems arising from the increase in the population of residential areas involve an increase in the density of housing per unit area without reducing the available space based on changes in residential types.

6.1. Urban renewal

The focus of the revised literature on the research topic is mainly concentrated in the surrounding area of the city because this is an urban area, where the city is generally undergoing the most drastic changes. Therefore, sustainability should become one of its main concerns. However, given that the current real estate crisis has led to the interruption of the expansionary urban process in the suburbs in some cases, there are many references to discuss the environment of urban centers and their sustainable renewal planning as a form of growth and development.

In some cases, the renewed focus on central urban areas is due to the abandonment of central urban areas in favor of other suburban areas, which have become obsolete in their past industrial nature[61]. Some of these references study cases of *shrinking* cities or "shrinking" cities, such as Detroit, Leipzig, or Dresden. Among these cities, the most important question is what new uses can replace industrial uses and make these cities play a role again[62]. However, the author advocates that this kind of mixed-use innovation can be achieved by using the city. In the case of the United States, this use is important because it increases employment opportunities, revitalizes manufactur-

ing, and contributes to economic recovery[63].

Other authors have found solutions to the abandonment of such urban centers through sustainable filling: introducing ecological blocks, increasing free space, and using sustainable transportation; solutions imported from Europe (Germany, Sweden) to the United States[64]. In fact, many authors regard sustainable housing as the main factor in seeking the sustainability of abandoned or transformed urban centers. This sustainable residential structure has several names: ecological community, urban village, and ecological block[65]. Some mechanisms for achieving sustainability are based on: 1) adaptive reuse of buildings to reduce carbon production; 2) taking energy-saving actions on the administrative provisions on the use of non-working hours and the administrative provisions on their reuse ability; 3) building rating systems are one of the main countermeasures for the construction industry to meet the challenge of sustainable development. This is an issue related to countries with rapid urban development such as Chile, which have their own problems, but there are international rules in this regard that need to be adjusted appropriately[66]. In recent years, these systems have gone beyond the limitations of individual building assessments to cover the whole community and community sustainability. In doing so, they reinforce the differences between the two research frameworks, especially in how they respond to complex urban issues, such as social inequality, cultural diversity, and technological context.

In addition, urban renewal interventions must be integrated into a strategic framework to promote the sustainability of any of their physical, economic, and social structures, which will directly affect and reduce their obsolescence. A global problem related to the regeneration of urban factories is in countries with rapid and large-scale urban growth, such as Latin America and some Southeast Asian countries. China's rapid growth has produced a special form of urban development, called "village in city", which aims to meet the huge residential demand caused by the migration of rural populations to cities. These are slums and dilapidated urban areas. Lin and De Meulder tried to introduce the specific method of urban project method in China, paying special attention to the opportunities and challenges of participants and strategic locations[67].

6.2. Sustainable urban scale

Another question under discussion is what: is the size of the city with the greatest potential for sustainable development? Most authors agree that big cities are the most likely cities to succeed. They enjoy greater financial health and more economic resources. Therefore, they can develop more sustainably than medium-sized environments, which will be more sustainable than small-scale environments[21]. However, at present, a large part of the world's population lives in small and medium-sized cities. Some of these countries have even increased their populations and therefore their resources, which directly leads to an increase in their sustainable potential. The problem faced by small towns is a lack of research and innovation. To address this problem, initiatives to establish networks at the local and international levels deserve attention. We found the following examples in the publications of Mayer and Knox[68] slow food and slow city (Italy), eco city (Sweden), economic horticulture (United States), UNESCO creative cities network project, promoted by the Swiss government, launched in Albania[69]. Finally, it must be noted that in large cities, the number and complexity of elements, actors, and strategies of plans to promote sustainability are higher, and the relationship between them is closer[70], so the share of sustainability will be higher.

7. Sustainability evaluation

It is generally believed that the key to achieving sustainability is to strictly evaluate the elements and terms of sustainability through planning. Sustainability assessment can greatly help different stakeholders improve their decision-making strategies to achieve sustainability. It is achieved by ob-

taining indicators, which are the main elements of its practice, and help to determine the success of planning strategies and policies implemented by various stakeholders. Their choices involve different processes, such as citizen participation. These variables qualitatively and quantitatively determine what is sustainable and what is unsustainable, which highlights their technical nature. Therefore, the SDGS emphasizes the need to develop innovative large-scale data indicators to make their collection and monitoring possible (big data, data mining), which will help to make progress in identifying more innovative goals and more relevant and targeted indicators. This process depends on the construction of government data institutions, culture, and investment in specialized research and education programmes[71].

However, these procedures are not without problems. Targets and indicators are based on official and official data, which are often unreliable and do not include unregulated activities[72], such as informal urban development and unstable settlements. This growth is very common in fast-growing cities, which have exceeded the official growth rate of the total area of urbanization in the world.

Since planning, urban development, and sustainability involve environmental, economic, and social aspects, indicators of planning and sustainable urban development must also assess these three pillars. Among the literature studied, some only discuss sustainability assessment in the built environment. We found an example. Take Seoul as an example, assess the causes and impacts of climate change on multiple scales according to the level of carbon dioxide emissions, and formulate mitigation measures according to the framework of a sustainable urban system. These measures include the adoption of energy-efficient building standards and the reduction of greenhouse gases[73]. Rating tool for assessing the adaptive reuse potential of buildings in New South Wales and Melbourne[74]. Assess greenhouse gas emissions from a social community in Merida, Mexico, by incorporating environmental quantitative tools into planning to develop a sustainable green emission reduction strategy[75].

On the other hand, other authors advocate a more comprehensive sustainable assessment of the above three aspects. Indicators are used through the USMS (urban sustainable management system) tool to assess integrated sustainability as a strategy for managing fast-growing large cities on desert land in Egypt[76]. Compare several comprehensive sustainability indicators of several cities to promote intercity cooperation and cooperation with other actors[77]. The application of the system dynamics model in Hong Kong[59] to predict the scenario of future urban development and link it with the form of urban growth conducive to governance.

Some methods

There are many tools, systems, and models that can be used to assess sustainability indicators for sustainable urban planning and development. Therefore, it is necessary to minimize the number of indicators and objectives to be evaluated and test their effectiveness[78]. They depend on the nature of the issues addressed and the political agenda of each country or area of research.

One of the most interesting methods is to establish future scenarios, which are evaluated by different stakeholders. The indicators derived from this analysis correspond to those of desire and possibility[79]. This helps to analyze the relationship between different approaches to climate change and guide these actions in an integrated manner within the framework of sustainable alternative strategies promoted by planning. This approach will outline future urban research by providing indicators of the eco city concept, unlike other studies related to more traditional urban sustainability. Many of these case studies, from small projects to large cities[80], take place in Australia.

Other interesting indicators include the following: 1) Using the international list of urban sustainability indicators[5], good urban practices are selected according to different methods. 2) The debate between urban form and mobility, with partic-

ular attention to the impact of transportation on land use and use time[81]. 3) Racial harmony, centered on the Chicago School, fought against the aging and deterioration of American cities after World War II through an ecological-based urban renewal policy. 4) Impact of renewal and conservation actions in Istanbul's historic central city[82]. 5) Community planning and design rating system[83]. 6) The relevance of specific targets and indicators at the local level is more important in medium-sized cities than in large cities, as evidenced by the comparison of five global cities under the *Mistra Urban Futures* project: Bagarore, Cape Town, Gothenburg, Manchester and Kisumu[78]. The project tested the initial objectives and indicators of SDGS and revealed many complexities and differences. 7) Quality of life, measuring issues: environmental, economic, social, physical, and health to promote sustainable development strategies. 8) Factors that determine whether cities take sustainability seriously. The last point focuses on the United States. U.S.A. Through double analysis. One of them takes place in green cities, trying to make the most of their natural environment to achieve sustainable human life[84]. The other analyzed the policies committed to sustainable development in 38 of the 55 major cities. The study focuses on seven broad areas: indicators, smart growth, land use, transportation, energy and resources, pollution and governance, identifying gaps in equity, health, resilience, and environmental education.

8. Discussion

A previous review of recent research on sustainable urban planning and development addressed the complexity of this issue. **Figure 4** comprehensively shows this complexity, which is reflected in the interrelationship between the factors involved in this process in order to achieve sustainable development. The main channels for achieving this goal come from planning and stakeholders, which interact logically: the former is a tool for implementing the latter's policies.

In order to achieve sustainability-related goals, it is essential to assess the process of achieving sustainability through the use of ad hoc indicators, which are key elements of achieving sustainability. They help to determine the success of the strategies proposed in the plan and to implement the policies imposed by different stakeholders. Planning, urban development, and sustainability, and the resulting strategies and stakeholders, focus on issues that include social, economic, and environmental dimensions and can therefore be integrated.

When the multi-level process of education, communication, learning, and participation affects stakeholders, in order to determine the different policies pursuing sustainability, the fourth dimension is an integral part of the previous framework: governance.

Therefore, targeted strategies (planning) and policies (stakeholders) are the channels for sustainable urban development. The following discusses some of the main factors and trends that these channels manage to achieve their objectives: how our cities grow and the costs of the materials and processes they use at all levels (economic and social). Finally, the last point of discussion is to discuss all these comprehensive issues under the word "sustainability", and its meaning is questioned.

8.1. Urban form and sustainability

Density and compactness are the two most commented-upon factors in the literature on introducing sustainability into planning and development through urban form. Since the 1990s, the movement known as the "new urban planner"[85,86] has widely promoted dense and compact forms related to public transport and mixed-use as an alternative to urban expansion related to private vehicles and zoning through concepts such as TOD (transport oriented development) (see **Figure 5**).

However, increasing density and compactness as a model of sustainability is not a systematic solution to all urban problems. If this measure is not taken in the appropriate place, form, and time, it may damage the ecological and social systems.

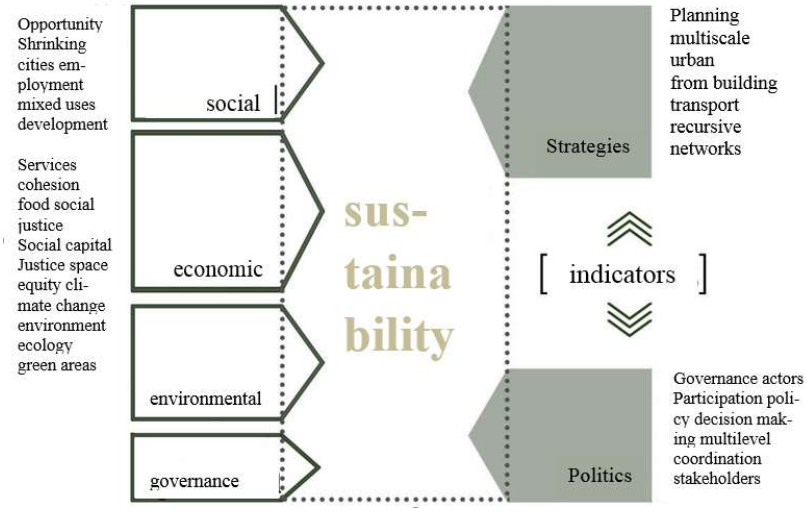

Figure 4. Sustainable development planning evaluation process.

Figure 5. TOD (transportation-oriented development) concept map: take the downtown gas lamp area (San Diego, USA) as an example (DCHA).
Source: San Diego TOD guide. Available from: http://www.calthorpe.com/.

On the other hand, recent studies have shown that the problem that ethical requirements for sustainability in the field of urban design often replace disciplinary contributions still exists, which raises doubts and leads to tensions between planners promoting disciplinary knowledge and planners advocating sustainability[87]. New research should be able to develop a design that integrates these two areas through innovation.

However, in this regard, there are some references to other determinants[88], such as public transport, mixed-use, and environmental design. This paper reviews some studies that provide solutions for specific urban areas and draws application conclusions from the analysis of the specific forms of historical cities. However, the real challenge lies in how to intervene through the design generated by these factors in "another city" or suburban areas, where the city's production mechanism is constructed through a decentralized logic that is consolidated through often vague planning, which excludes any structural attempt organized through more standardized urban values. Some authors provide effective solutions based on: 1) developing specific infrastructure to encourage public transport rather than the use of cars; 2) comfortable (walking) connections between basic services and uses (homes, schools, sports and health centers, businesses) within a reasonable time; 3) promoting residential layout and connected park system near employment sites; 4) integrating flexible mixed-use into urban planning and development as a condition of sustainability[48,55,56]. However, such solutions often face the opposite political agenda due to the opposition of some sectoral interests and high-cost investment. An example of this is the refusal to use industrial land in urban areas eager for sustainable development.

In the case of the United States. U.S.A. Revitalizing this use through flexible integration with

others in the city is interesting for revitalizing manufacturing, creating jobs, and restoring the economy. In order to integrate such actions into a viable economic framework through planning and with the support of governance at all levels, some future studies should explore more successful methods in this regard.

Finally, we review some studies that show that a sustainable city (or desire to become a sustainable city) is an excellent big city, and this concept has changed from the negative significance of the 1960s to the positive significance of today. However, in the center of a big city, not everything is a "bonfire"[70]. These are at the heart of profits, intercepting capital and commodity flows in the process of "creative destruction", triggering huge bubbles and popular anger. The popular community with superior geographical location is transformed into a new high-end habitat (owners, intellectual bourgeoisie) to provide accommodation for developers, investors, managers, famous facilities, wealthy tourists, etc. These people are assigned to a complex service system by ensuring an innovation network with a high consumption rate and high control rate. However, it expelled most of the society composed of its former residents (low-end "owners") to the periphery, reducing them to marginalization and poverty. Garnier would say "class struggle"; Harvey said that class confrontation is very different from what we are used to (the proletariat)[1]. The sustainability of postmodern capitalism seems to meet the localization standard in the leading system of urban space.

8.2. Sustainability, economy and cities

According to Patterson[90], the current environmental economy is almost entirely limited to "market solutions", technological innovation, and energy efficiency. Market-driven solutions to climate change, such as emissions trading, involve some short-term outcomes that regulate the production of private products but are neither suitable for collective products nor for predicting long-term environmental costs. As Gidden said, these costs must be managed from political logic and a more cooperative multinational world[91]. This requirement is now more evident in the current economic crisis.

We have reviewed several studies that believe that it is necessary to invest in sustainability within the planning framework. Such investment will be reversed over time at the environmental, social, and economic levels, and may even make cities profitable and create new jobs. As we have seen, planners must link environmental planning to economic development by assessing the economic impact of sustainability policies. In the revised literature, a distinction should be made between research seeking sustainability through proposals based on the use of expensive or technologically advanced mechanisms and research promoting low-cost sustainable action.

Some authors believe that taking sustainable actions in our cities may bring high levels of economic expenditure to users, communities, and governments, which will be difficult to recover over time. Some of them involve the merging or construction of new and expensive elements. These measures involve the application of "green" technology to buildings and communities, such as ecological blocks, the development of intelligent infrastructure, or complex filling operations in degraded or abandoned urban centers. This may lead to social justice issues related to aristocracy and governance. The latter involves speculation in private interests, as they participate in the process at all costs.

Other authors prefer low-cost, sustainable measures, but they are equally effective. For example, these are generated from the capital gains generated by social urbanization and urban construction, which seek collective interests rather than private interests. Some of its attributes include building reuse operation, sustainable type, and qualified pedestrian gathering places, which constitute the local network.

To achieve sustainability, planning must have strategic significance. This will enable it to play the

role of integration, assessing the economic impact of sustainability policies and harmonizing standards in this regard. On the other hand, sustainable urban development necessarily involves the integration of innovation and creativity into planning and its evaluation process, which directly affects its economic impact on cities[23,38,63,92]. However, in order for urban innovation and creativity to flow, it is essential that the rules set out in planning be tolerant and develop in an open multidimensional system (codes of conduct, lifestyles, cultural expressions), which is a prerequisite for innovation. However, this tolerance may conflict with other issues for which metropolises require regulation: safety, prevention of antisocial behavior, management of "waiting space", etc. The environment is often related to the creative class. Therefore, the ability to successfully combine these two perspectives is where sustainable planning faces new challenges[93].

At present, people doubt the possibility of combining all these factors through planning. We really don't know how much innovation represents the climate action plan (CAP), or how much these plans repackage more classic initiatives. This consideration will be more meaningful if we increase its complexity variables and add economic conditions for its sustainable measures of development. In addition, the regulation of these issues is very post-political, and the participation of activists, experts, politicians, and scientists is often different. This makes the decision about risk action vague and departmental. Further research is needed to help improve the planned evaluation mechanism for the integration and management of all these issues.

8.3. Unsustainable rhetoric of sustainability

There is a continuous crisis in planning and urban design: the clarity of the public interest goal that urban planning should pursue has been replaced by many common, vague, and general terms. The center of public ethics is occupied by almost all commercialization and barbaric liberalism. Carbon has been transformed into manufacturing in complex futures markets.

The earth seems to be a blue spaceship, and its crew (human beings) must understand it in the context of global ecological governance[94–96] to solve global problems. It seems that all crew members have the same rights, interests, and responsibilities. But he didn't. As an external cultural state of mankind, "nature" has become "environment and sustainable development"[97,98]. It is a discursive device. Everything needs (economy, science, technology, ethics, politics, and aesthetics), which can be managed and adjusted from the private daily life, the vastness of the earth and its infinite and systematic affairs, and the minimum attitude of residents[99]. I've never seen anything like this before. The mechanisms and rhetoric used by the market to take action may be well suited to explain the economy of private goods and services, but they must not be used to manage everything related to public affairs, let alone the uncertainty that future generations will experience.

The results of sustainable development must be critically reviewed and evaluated. Without romanticism, passion, or utopia, it is difficult to understand how capitalism (profit, efficiency, market, competitiveness) is transformed from predatory economic instincts in the context of social justice and democracy that the "welfare state" strives to ensure in order to protect and reassess natural resources. Without democracy and global government to manage global conflicts and injustice, what do we really think is "global thinking and local action"? This is undoubtedly a moral issue because "you can't kill," as he said, "you can't produce carbon dioxide"[100]. The problem is that it is systematically violated.

In this opaque speech, cities appear as a collective social territory, where the term "sustainable development" is discussed and standardized. What city? It is unclear whether the unjust and tragic urbanization that is euphemistically referred to as poverty in developing countries[101,102] marks an infinite extension, or the clean and prosperous urbanization of the most developed countries, the urban delusion driven by the oil-producing economy

to attract consumption and influence.

In the European era of prosperity and social democracy, planning and urban planning were consolidated, only in most areas of political action and urban planning, in order to ensure common and public interests at the nation-state level, such as public education and health systems. We know that a good cause must mobilize those who want to know themselves so that they can live in a fairer and more comfortable way in their own geographical location, but it is even more difficult to understand if there is a "market" in the environment of countries and democratic organizations captured by global capitalism. In the latter case, it must be profitable because there is no other reason. Therefore, today's political organization presents strange dialectics: economy and ecology, profit and nature, stock market and typhoon, finance, and virus. We want new lies!

9. Conclusions

This paper reviews recent impact studies related to urban planning and development from the perspective of sustainability and collects many case studies. Selected sources and submitted case studies are discussed under the topics addressed in the work. Although a large number of studies cover the various issues discussed, the mechanisms and tools for achieving sustainability in urban planning and development have been clarified, discussed, and emphasized.

The findings indicate a growing interest in research on this subject during the reporting period. During the reporting period, the three impact magazines that received the most attention were as follows: Habitat International, Journal of the American Planning Association, and European Planning Research. Most of the literature focuses on the case studies of Anglo-Saxons and China. In Europe, most examples are in northern cities. Latin America and the African continent have done little research in other areas, but include recent examples.

In the revised literature, although there is no etymological rhetoric, sustainable urban planning and development are considered powerful methods. Address the threat of climate change through the development of sustainable urban policies and practices. Through a comprehensive discussion of the environmental, economic, and social aspects of administering the territory. Properly link population growth and land expansion with the reduction of existing resources. Create employment, and wealth and promote technological development. Improve community conditions by strengthening networks, improving local quality, and promoting ethnic integration and gender equality. Realize food justice and take conscious actions to reduce the ecological footprint. Promote the integration of environmental awareness into values, social norms, and behavioral changes. Deal with multi-level problems in the planning of solving urban and territorial problems. Social, administrative, and stakeholder cooperation is required at multiple levels. Reduce the use of private cars and encourage public transport. Promote public participation in sustainability decision-making by predicting future urban development scenarios. Improve energy efficiency, reduce harmful gas emissions, promote a low-carbon building environment, and emphasize actions to protect and reuse these environments.

In the discussion section, the different issues discussed are interrelated, and suggestions for future research are put forward, with emphasis on the topics they cover. The relationship between urban form and sustainable growth. Economic feasibility of sustainable urbanization. Public debate on the rhetoric and meaning of the term "sustainable".

The city is at the core of sustainable development. We must comprehensively solve the problem of sustainability in the fields of strategy, innovation, accumulation of social capital, and multi-scale urban planning, which is the guideline for realizing sustainability and evaluating its cost. The scope of sustainability requires. Rigorous evaluation through indicators can be achieved, inter alia, by studying good urban practices and innovation in managing massive data. Develop the process of participation,

education, learning, and developing future scenarios. It will be most sustainable for larger cities to provide more intensive, compact, renewable, socially cohesive, and energy-efficient urban solutions, and to build barrier-free neighborhoods between residence, work, and services through appropriate infrastructure. The sustainable potential of small and medium-sized cities will depend on their ability to establish networks that will connect larger territories.

Conflict of interest

The authors declare no conflict of interest.

References

1. Harvey D. The right to the city. New left review (2008). 6th ed. In: Legates RT, Stout F (editors). The city readers. London and New York: Routledge; 2016. p. 270–278.
2. Harvey D. Rebel cities: From the right to the city to the urban revolution. London, New York: Verso; 2013. p. 187.
3. Koolhaas R. Advancement versus apocalypse. In: Mostafawi M, Doherty G (editors). Ecological urbanism. Cambridge (Massachusetts): Harvard Graduate School of Design; 2010. p. 56–71.
4. Hanlon B. Review of the book: Social sustainability in urban areas. Journal of Planning Education and Research 2010; 30(2): 213–214.
5. Shen L, Ochoa JJ, Shah MN, *et al*. The application of urban sustainability indicators—A comparison between various practices. Habitat International 2011; 35: 17–29.
6. Lewis R. Review of the book: Taking Sustainable Cities Seriously: Economic Development, the Environment and Quality of Life in American Cities. Journal of the American Planning Association 2013; 79(3): 257–258.
7. Beatley T, Manning K. The ecology of place: Planning for environment, economy and community. Washington, D.C.: Island Press; 1997. p. 278.
8. Berke PR, Conroy MM. Are we planning for sustainable development? An evaluation of 30 comprehensive plans. Journal of the American Planning Association 2000; 66: 21–33.
9. Sklarew J. Review of the book: The Post Carbon Reader: Managing the 21st Century's Sustainability Crisis. Journal of Planning Education and Research 2012; 32(3): 370–372.
10. United Nations. Report of the secretary-general on the work of the organization. New York, United Nations; 2015. p. 82.
11. Carbonell A. A review of "Planning for Climate Change: Strategies for Mitigation and Adaption for Spatial Planners". Journal of the American Planning Association 2010; 76(4): 519–520.
12. Zheng H, Shen G, Wang H. A review of recent studies on sustainable urban renewal. Habitat International 2014; 41: 272–279.
13. Singh RK, Murty HR, Gupta SK, *et al*. An overview of sustainability assessment methodologies. Ecological Indicators 2012; 15: 281–299.
14. Kawakami M, Shen Z, Pai J, *et al*. Spatial planning and sustainable development. Approaches for achieving sustainable urban form in Asian cities. Dordrecht, Heidelberg, London, New York: Springer; 2013. p. 459.
15. Hassan A, Lee H. Toward the sustainable development of urban areas: An overview of global trends in trials and policies. Land Use Policy 2015; 48: 199–212.
16. Schubert A, Lang I. The literature aftermath of the Brundtland report 'Our Common Future'. A scientometric study based on citations in science and social science journals. Environment, Development and Sustainability 2005; 7(1): 1–8.
17. Quental N, Lourenço JM. References, authors, journals and scientific disciplines underlying the sustainable development literature: A citation analysis. Scientometrics 2012; 90: 361–381.
18. Wheeler S. Sustainable urban development: A literature review and analysis. UC Berkeley, IURD Monograph Series; 1996. p. 138.
19. Yang D, Yin C, Long Y. Urbanization and sustainability in China: An analysis based on the urbanization Kuznets-curve. Planning Theory 2013; 12(4): 391–405.
20. Van Leeuwen E. Review of the book: Parallel Patterns of Shrinking Cities and Urban Growth: Spatial Planning for Sustainable Development of City Regions and Rural Areas. Journal of Regional Science 2014; 54(3): 538–539.
21. Lubell M, Feiock R, Handy S. City adoption of environmentally sustainable policies in California's central valley. Journal of the American Planning Association 2009; 75(3): 293–308.
22. Holden M. Public participation and local sustainability: Questioning a common agenda in urban governance. International Journal of Urban and Regional Research 2011; 35(2): 312–329.
23. Larsen K, Gunnarsson-Östling U. Climate change scenarios and citizen-participation: Mitigation and adaptation perspectives in constructing sustainable futures. Habitat International 2009; 33: 260–266.
24. Mack EA. Review of the book: Sustainability in America's Cities: Creating the Green Metropolis. Journal of Planning Literature 2012; 27(4): 461–462.
25. United Nations. Informe de la Cumbre Mundial sobre Desarrollo Sostenible (Spanish) [Report of the World Summit on Sustainable Development]; 2002 Aug 26–Sept 4; Johannesburg (South Africa).

New York: United Nations; 2002. p. 184.
26. Campbell S. Green cities, growing cities, just cities? Urban planning and the contradictions of sustainable development. Journal of the American Planning Association 1996; 62(3): 296–312.
27. Bassett SD. Review of the book: Water and the City: Risk, Resilience and Planning for a Sustainable Future. Journal of Planning Education and Research 2013; 33(4): 502–503.
28. Hovey B. Review of the book: Governing for Sustainable Urban Development. Journal of Planning Education and Research 2014; 34(2): 244–246.
29. Priemus H, Davoudi S. Introduction to the special issue. European Planning Studies 2012; 20(1): 1–6.
30. Keil R. Review of the book: Bird on Fire: Lessons from the World's Least Sustainable City. International Journal of Urban and Regional Research 2014; 38(3): 1127–1128.
31. Basiri M, Azim AZ, Farrokhi M. Smart city solution for sustainable urban development. European Journal of Sustainable Development 2017; 6(1): 71–84.
32. Conke L, Ferreira T. Urban metabolism: Measuring the city's contribution to sustainable development. Environmental Pollution 2015; 202: 146–152.
33. Daniels TL. A trail across time: American environmental planning from city beautiful to sustainability. Journal of the American Planning Association 2009; 75(2): 178–192.
34. Millard-Ball A. The limits to planning: Causal impacts of city climate action plans. Journal of Planning Education and Research 2013; 33(1): 5–19.
35. Dymén C, Langlais R. Adapting to climate change in Swedish planning practice. Journal of Planning Education and Research 2013; 33(1): 108–119.
36. Theurillat T, Crevoisier O. The sustainability of a financialized urban megaproject: The case of Sihlcity in Zurich. International Journal of Urban and Regional Research 2013; 37(6): 2052–2073.
37. Botchwey ND, Trowbridge N, Fisher T. Green health: Urban planning and the development of healthy and sustainable neighborhoods and schools. Journal of Planning Education and Research 2014; 34(2): 113–122.
38. Bassett E, Shandas V. Innovation and climate action planning. Perspectives from municipal plans. Journal of the American Planning Association 2010; 76(4): 435–450.
39. Roy M. Planning for sustainable urbanisation in fast growing cities: Mitigation and adaptation issues addressed in Dhaka, Bangladesh. Habitat International 2009; 33: 276–286.
40. Kärrholm M. The scaling of sustainable urban form: A case of scale-related issues and sustainable planning in Malmö, Sweden. European Planning Studies 2011; 19(1): 97–112.
41. Seltzer E. Review of the book: Regional Planning for a Sustainable America: How Creative Programs Are Promoting Prosperity and Saving the Environment. Journal of the American Planning Association 2012; 78(4): 489.
42. Marcucci DJ. Review of the book: Regional Planning for a Sustainable America: How Creative Programs Are Promoting Prosperity and Saving the Environment. Journal of Regional Science 2012; 52(3): 525–527.
43. Zanon B. Planning small regions in a larger Europe: Spatial planning as a learning process for sustainable local development. European Planning Studies 2010; 18(12): 2049–2072.
44. Bihari M. Book review: The purpose of planning: Creating sustainable towns and cities. Journal of Planning Education and Research 2012; 32(3): 372–374.
45. Naess P. Urban form, sustainability and health: The case of Greater Oslo. European Planning Studies 2014; 22(7): 1524–1543.
46. Dempsey N, Brown C, Bramley G. The key to sustainable urban development in UK cities? The influence of density on social sustainability. Progress in Planning 2012; 77(3): 89–141.
47. Sharifi A, Murayama A. Changes in traditional urban form and the social sustainability of contemporary cities: A case study of Iranian cities. Habitat International 2013; 38:126–134.
48. Westerink J, Haase D, Bauer A, *et al*. Dealing with sustainability trade-offs of the compact city in peri-urban planning across European city regions. European Planning Studies 2013; 21(4): 473–497.
49. Colaninno N. Sustainable territorial development and urban growth: A critical interaction: The Spanish Mediterranean coast, and Catalonia during the last two decades. ACE: Architecture, City and Environment 2012; 20(7): 149–172.
50. Bindzärová A. Type and size of urban cell as tools for sustainable urban (re)development. Procedia Engineering 2016; 161: 1482–1489.
51. Mayer H, Habersetzer A, Meili R. Rural–urban linkages and sustainable regional development: The role of entrepreneurs in linking peripheries and centers. Sustainability 2016; 8(8): 745.
52. Echenique MH. A sustainable city. Is urban form really important? Journal of the American Planning Association 2012; 78(2): 121–137.
53. Simpson B. Britain's new towns: Garden cities to sustainable communities. European Planning Research 2010; 18(5): 861–862.
54. Nelson AC. A review of "From Sprawl to Sustainability: Smart Growth, New Urbanism, Green Development, and Renewable Energy (2nd ed)". Journal of the American Planning Association 2010; 76(4): 516–517.
55. Williamson J. Review of the book: Seven Rules for Sustainable Communities: Design Strategies for the Post-Carbon World. Journal of Planning Education and Research 2013; 33(2): 250–252.
56. Banai R. Review of the book: Seven Rules for Sustainable Communities-Design Strategies for the Post-Carbon World. Journal of Planning Literature

2011; 26(1): 48–49.
57. Zhao P. Sustainable urban expansion and transportation in a growing megacity: The impact of urban sprawl on the mobility of urban fringe in Beijing. Habitat International 2010; 34: 236–243.
58. Cho-Yam J. Sustainable urban transport planning and the commuting patterns of poor workers in a historic inner city in Guangzhou, China. Habitat International 2013; 39: 119–127.
59. Shen Q, Chen Q, Tang B, *et al*. System dynamics model of sustainable land use planning and development. Habitat International 2009; 33: 15–25.
60. Asfour OS. Towards an effective strategy to cope with housing land scarcity in the Gaza Strip as a sustainable development priority. Habitat International 2012; 36: 295–303.
61. Ruggeri D. Review of the book: The Principles of Green Urbanism: Transforming the City for Sustainability. Journal of Planning Education and Research. 2013; 33: 132–134.
62. Van Leeuwen E. Review of the book: Parallel Patterns of Shrinking Cities and Urban Growth: Spatial Planning for Sustainable Development of City Regions and Rural Areas. Journal of Regional Science 2014; 54(3): 538–539.
63. Leigh NG, Hoelzel NZ. Smart growth's blind side. Sustainable cities need productive urban industrial land. Journal of the American Planning Association 2012; 78(1): 87–103.
64. Carlette F. Book review: Potential for Sustainable Communities: Lessons from Low-Carbon Communities. Journal of Planning Literature 2014; 29(3): 274–275.
65. Winston N. Urban regeneration for sustainable development: The role of sustainable housing? European Planning Research 2009; 17(12): 1781–1796.
66. Blanco J. Sustainable urban development in Chile: A way to introduce a sustainability rating system for neighboring countries. Journal of Architecture and Planning Research 2016; 33(3): 251–270.
67. Lin Y, De Meulder B. A conceptual framework for the strategic urban project approach for the sustainable redevelopment of "villages in the city" in Guangzhou. Habitat International 2012; 36(3): 380–387.
68. Mayer H, Knox P. Small town Sustainability: The second is the prospect of modernization. European Planning Research 2010; 18(10): 1545–1565.
69. UNESCO. Creative cities network. París, culture sector, division of creativity [Internet]. 2004. Available from: https://en.unesco.org/creative-cities/.
70. Ruth M. Review of the book: Taking Sustainable cities Seriously: Economic Development, the Environment and Quality of Life in American Cities. Journal of Regional Science 2014; 53(4): 741–742.
71. Kharrazi A, Qin H, Zhang Y. Urban big data and sustainable development goals: Challenges and opportunities. Sustainability 2016; 8(12):1293: 1–6.
72. Arfvidsson H, Simon D, Oloko M, *et al*. Engaging with and measuring informality in the proposed Urban Sustainable Development Goal. African Geographic Review 2017; 36(1): 100–114.
73. Jo JH, Golden JS, Shin SW. Incorporating built environment factors into climate change mitigation strategies for Seoul, South Korea: A sustainable urban systems framework. Habitat International 2009; 33: 267–275.
74. Conejos S, Langston C, Smith J. Adapt STAR model: A climate-friendly strategy to promote built environment sustainability. Habitat International 2013; 37: 95–103.
75. Cerón-Palma I, Sanye-Mengual E, Montero J, *et al*. Towards a green sustainable strategy for social neighbourhoods in Latin America: Case from social housing in Merida, Yucatan, Mexico. Habitat International 2013; 38: 47–56.
76. Abdel Galil R. Desert reclamation, management system for sustainable urban expansion. Planning Progress 2012; 78(4): 151–206.
77. Anderson K, Angelstam P, Axelsson R, *et al*. Connecting urban and regional planning: Analysis and visualization of sustainability indicators in Bergerslagen, Sweden. European Planning Research 2013; 21(8): 1210–1234.
78. Simon D, Arfvidsson H, Anand G, *et al*. Developing and testing the urban sustainable development goal's targets and indicators, a five-city study. Environment and Urbanization 2016; 28(1): 49–63.
79. Bügl R. Identifying stakeholders' views on sustainable urban transition: Desirability, utility and probability assessments of scenarios. European Planning Studies 2012; 20(10): 1667–1687.
80. Restrepo CE. Review the book: Ecopolis: Architecture and Cities for a Changing Climate. Journal of the American Planning Association 2010; 76(1): 128–129.
81. Curtis C, Scheurer J. Planning for sustainable accessibility: Developing tools to aid discussion and decision-making. Planning Progress 2010; 74: 53–106.
82. Akkar M. Challenges and conflicts in achieving sustainable communities in Istanbul's historic districts. Habitat International 2011; 35(2): 295–306.
83. Garde A. Sustainable by design? Insights from U.S. LEED-ND Pilot Projects. Journal of the American Planning Association 2009; 75(4): 424–440.
84. Schmidt S. Review of the book: Growing Greener Cities: Urban Sustainability in the Twenty First Century. Journal of the American Planning Association 2010; 76(3): 381.
85. Calthorpe P. The next American metropolis. Ecology, community and the American dream. New York: Princeton Architecture Press; 1993. p. 176.
86. Duany A, Plate-Zyberk E. Towns and town-making principles. New York: Rizzoli; 1991. p. 119.
87. Mostafavi M, Doherty G. Urbanismo ecológico. Volumen 1: ¿Por qué urbanismo ecológico? ¿Por

qué ahora? (Spanish) [Ecological urbanism. Volume 1: Why ecological urbanism? Why now?]. Barcelona: Gustavo Gigli; 2014. p. 655.
88. Jabareen YR. Sustainable urban form. Their types, models and concepts. Journal of Planning Education and Research 2006; 26(1): 38–52.
89. Jacobs J. The death and life of great American cities. New York: Penguin Random House; 1961. p. 472.
90. Paterson M. Global warming and global politics. London: Routledge; 1996. p. 256.
91. Giddens A. The politics of climate change. Cambridge: Political Press; 2009. p. 276.
92. Krueger R, Buckingham S. Towards a 'consensual' urban politics? Creative planning, urban sustainability and regional development. International Journal of Urban and Regional Studies 2012; 36(3): 486–503.
93. Scoppetta C. Broadening the public sphere through creative shadow planning. ACE: Architecture, City and Environment 2013; 21(7): 67–96.
94. Redclift M. Sustainable development: Explore contradictions. London: Routledge; 1987. p. 230.
95. Visvanathan S. Mrs Brundtland's disenchanted cosmos. Alternative 1991; 16(3): 377–384.
96. Beck U. Risk society: Towards a new modernity. London: Sage Publications; 1992. p. 272.
97. Escobar A. Construction natures: Elements for a post-structuralism political ecology. Futures 1996; 28(4): 325–343.
98. Swyngedouw E. Nature does not exist! Sustainability as symptom of a depoliticized planning. Urban 2011; (1): 41–66.
99. Latour B. Politics of nature: How to bring the sciences into democracy. Cambridge, Massachusetts: Harvard University Press; 2004. p. 320.
100. Innerarity D. Justicia climática (Spanish) [Climate justice]. Dilemata, Revista Internacional de Éticas Aplicadas 2012; 9: 175–191.
101. Davis M. Planet of slums. London: VISO; 2006. p. 256.
102. Brenner NY, Schmid C. The urban age in question. International Journal of Urban and Regional Studies 2013; 38(3): 1–25.