# Integrating Food Sovereignty into Urban Planning: A Social Justice Perspective

Mehmet Ergin[1*)], Bora Yerliyurt[2)]

[1*)] Urban Planning Ph.D. Program, Institute of Science, Yıldız Technical University, Istanbul, Turkey, Email: mehmeterginsbp@gmail.com, ORCID: 0009-0001-8538-8272
[2)] Department of Urban and Regional Planning, Faculty of Architecture, Yıldız Technical University, Istanbul, Turkey, Email: bora.yerliyurt@gmail.com, ORCID: 0000-0001-5979-8959

https://doi.org/10.29227/IM-2025-02-02-121

Submission date: *2025-05-30* | Review date: *2025-06-24*

## *Abstract*

*As a result of population growth, globalization, wars, natural disasters and the climate crisis that has become more evident, it is seen that the problems related to food have reached a point that cannot be ignored. Until now, food problems have mostly been studied in fields such as food engineering, agricultural engineering and medicine. Studies in the field of planning, on the other hand, have mostly been limited to rural areas, and this problem has been discussed much less through urban areas and urbanization paradigms. Considering the current urbanization rates and planning paradigms, discussing the food problem through urban areas and producing solutions in these areas by the planning discipline can develop systemic solutions. Accordingly, the aim of this study is to filter the food literature through the planning framework and explore alternative solution areas. In accordance with the purpose of the study, some concepts have been examined hierarchically within the framework of urbanization and planning, while others have been excluded. The conceptual flow has followed both a chronological order and a deductive method in which one concept points to another concept. Therefore, the study follows a descriptive research method and looks for practical clues. As an auxiliary source, bibliometric analysis has been a quantitative method frequently used in the methodology. The concept sets that emerged from the bibliometric analysis were guided by the role of planning to examine the qualitative and structural dimension of the food problem. The role of the planning discipline in the conceptual flow centered on food safety, food security and food sovereignty has been examined, and food sovereignty, with which the relationship is more strongly established, has been scrutinized. Food sovereignty has come to the fore with the social justice dimension of planning and has been seen as more potential in producing planning policies. In the concluding section, a comparative conceptual analysis of the three concepts is made through the approach, main objectives, fields of action, key institutions, food-related policies, actors and concerns. The relationship between food sovereignty, which is seen to have stronger ties to planning, and the instrumental and qualitative dimensions of planning is revealed. Even the marginalization criticisms against food sovereignty have been seen to have a certain scope in planning. It is inevitable that qualitative and empirical studies will accelerate against the current and potential food crises in the current economic system, which is prone to crises. Although there is a lack of food issues in the literature, which has so far been associated with the rural dimension of planning, it is expected that food sovereignty, as a new area of discussion in planning, will also be discussed in urban areas, which host a large part of the population, and point to solution areas.*

**Keywords:** *food, food security, food sovereignty, equity, planning, urban planning*

## 1. Introduction

The scale of the climate crisis is increasingly being recognised on a global scale. The cost of ignoring climate change is higher than the cost of taking action against it [1]. International agreements such as the United Nations Framework Convention on Climate Change (1992), Kyoto Protocol (2005), Paris Agreement (2015), United Nations Sustainable Development Goals (2015), European Green Deal (2019) stand out in the fight against the climate crisis. In the Paris Agreement, it is targeted that EU countries will reduce greenhouse gases by 40% by 2030, global warming will be kept at 1.5 °C, and policies for climate finance are included. Although its feasibility is debated, all direct or indirect impacts of the climate crisis are also included in the Sustainable Development Goals, consisting of seventeen articles agreed upon by world leaders in 2015 with a target of 2030. Among these goals, there are titles such as end to poverty, end to hunger, reduction of inequalities, sustainable cities and communities, climate action.

In the synthesis report of the Intergovernmental Panel on Climate Change [2], it is stated that human-induced activities resulting from unsustainable energy use, land use and change, lifestyles, production and consumption patterns and inequalities between regions, countries and individuals increase greenhouse gas emissions, and that the global surface temperature between 2011-2020 increased by more than 1.1 C compared to the pre-industrial years 1850-1900. In the observations stated in the report, it is stated that economic damages are experienced in climate-dependent sectors such as agriculture, forestry, fisheries, energy and tourism. The climate crisis also hinders efforts to achieve the UN Sustainable Development Goals by affecting food security and water security [2]. Existing problems such as forest fires, floods, drought, poverty, deforestation, food crisis, mass migration are increasing exponentially due to the climate crisis. The climate crisis has a negative impact on water availability and food production, health and welfare, cities and urban infrastructure areas, biodiversity and ecosystems [2]. As a result of all these impacts of the climate crisis, the issue of 'food' emerges as one of the most important problem areas. Current problems related to food increase concerns and worries for the future.

Throughout history, planners have focused on land use, housing, transport, environment, economy, health, education and infrastructure systems, but less on food systems, including food production, processing, distribution and waste management [3]. However, as Mumford [4] argues, cities and urban planning should not be limited to housing, work, leisure and mobility; cities

should be considered as a theatre for active citizenship, education, and a vibrant and autonomous life. Within this theatre, the roles of all characters and characters should be clearly defined. At this point, it is seen that the role of food in planning and especially in urban planning has occupied very little space in the studies conducted so far. Cities and regions are spaces that promote sustainable food production, distribution and market opportunities, and create resilient food systems by connecting all actors [5]. In existing studies, the issue of food has been seen more as a rural issue, so the connection with cities and urban planning has not been clearly established. Initiatives such as urban agriculture and hobby gardens have been very insufficient in providing this connection. In this direction, it is necessary to examine the structural problems of the food problem and reveal its relationship with cities, urbanisation and other planning paradigms.

Considering the current urbanization rates and planning paradigms, discussing the food problem through urban areas and producing solutions in these areas by the planning discipline can develop systemic solutions. Accordingly, the aim of this study is to filter the food literature through the planning framework and explore alternative solution areas.This article does not suggest that problems in food systems and food insecurity can be completely eliminated through planning. As Prosekov and Ivanova [6] point out, some of the causes of food problems are natural disasters, armed conflicts, population growth and poverty. Planning cannot be expected to find solutions to all these problems. However, it can be expected that planning can point to important solution areas in the food chain, which is referred to as the road from farm to fork [7].

There are factors affecting the food problem such as population growth, globalisation, wars, natural disasters and climate change. However, "climate change", which is the triggering factor of this article, differs from other factors at this point. The identification of the food problem has emerged with the main problem of climate change. In addition, the food problem is not the only area affected by climate change. The effects of climate change are also seen in areas such as health, water security, biodiversity and energy. Due to the spiral of factors affecting each other at different scales, it has become necessary to limit the issue in order to analyse it scientifically. From this point of view, after the identification of the problem area, the food problem rather than climate change has been scrutinised.

When the food problem was analysed within the framework of bibliometric analysis, the concepts of ‘food safety’ and ‘food security’ were first encountered. Then, when food is analysed from the perspective of ‘equity’ or ‘justice’, one of the most important pursuits of planning today, the concept of ‘food sovereignty’ becomes apparent. The arrows can be symbolised as the planning factors guiding the flow of the article. In creating this flow and the scope of the article, planning tools and potentials were constantly considered. In this orientation of planning, two aspects were considered. The first point is the method of the article, which is used to select the relevant concept from the concept set; the second point is the planning framework that determines the boundaries of the article. This is because, outside the planning framework, different conceptual flows may emerge when looking at the food problem from a different discipline. The concepts of food safety, food security and food sovereignty, which emerge when the food problem is analysed from the planning framework, have been the concepts examined within the scope of the article. In parallel with the graph above, these concepts have both developed in a chronological order and have shown a hierarchical percolation in a deductive manner. However, what is important in this article is not the chronological order but the hierarchical filtering of the concept set.

## 2. Methodology

In accordance with the purpose of the article, bibliometric analysis was used to see the conceptual change in the literature. Bibliometric analysis is a method that enables quantitative analyses such as the evolutionary process and breaking points of concepts in a certain field or period through high volumes of data [8]. In this article, bibliometric analysis was considered as an auxiliary tool and a literature review was carried out within the framework of new paradigms of planning, new planning systematics and food. Bibliometric analysis can be considered as the preliminary stage of a systematic literature.

During the bibliometric analysis, both Scopus and Web of Science (WoS) databases were used since the years of data coverage and processing possibilities differed. Although similar results were obtained in the analyses of the same years, this database was mostly used since more detailed analyses can be made with the WoS database. The data obtained from the database were visualised and analysed with Vosviewer software. With Voswiever, analyses such as the most cited authors, the countries of these authors, the chronological development of concepts, the frequency of use of keywords in desired intervals can be made. In this article, co-occurrence to author keywords was analysed through Voswiever. In this analysis, the number of repetitions of keywords in the sources written about a concept, clustering of links and chronological development can be seen. For the keyword analysis, some related words were searched together in WoS and Scopus databases and the data of the sources were prepared by downloading the data in the format (tab limited file) to be processed in the Vosviewer database.

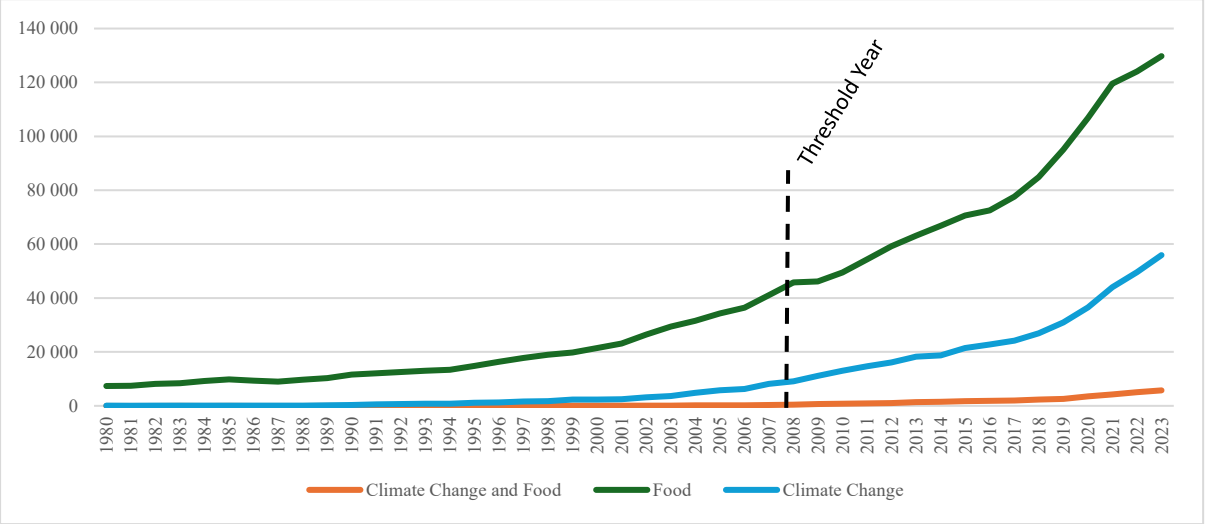
The planning framework and the bibliometric analysis method have been effective in creating the conceptual flow. The planning framework was formed not with the concepts of traditional planning such as public interest, comprehensiveness and rationality, but with the recent concepts of planning such as justice and fairness. As Sayer [9], mentions, these concept searches can be shaped within the framework of the professional ethical values of the researchers. In this direction, the planning literature was analysed with the concern of climate change and the existence of the food problem was determined. The relationship between climate change and food issue was analysed and related concepts were revealed. In the article, not all concepts such as food chains, food systems, food insecurity, food safety, food security and food sovereignty are included, but some concepts are included by establishing a planning relationship with a hierarchical filtering. Instead of synthesising all concepts as a whole, some concepts were excluded from the scope by proceeding step by step. In this context, the concepts of food safety and food security were included first. Since the relationship between the two concepts and planning is different, they are not included in the same volume. Despite the strong relationship between food security and planning, the lack of a social link in this relationship pushed the study to a new search and the concept of food sovereignty was encountered. When the food problem is analysed from other methods and perspectives, it is likely that other concepts beyond food sovereignty will be the subject of studies. However, rather than seeing each concept as a clear prescription, we believe that positive inferences should be made by creating an adequate discussion and working ground. Since the context of food sovereignty and planning seems to be strong in terms of both the current situation and future policy-making, a dominant part of the theoretical

framework is devoted to food sovereignty. Finally, a comparative conceptual analysis of food safety, food security and food sovereignty is made by establishing a planning relationship as a whole. Thus, it will be ensured that the discussion area where planning literature can contribute to the food problem at different scales will be developed.

## 3. Conceptual Framework

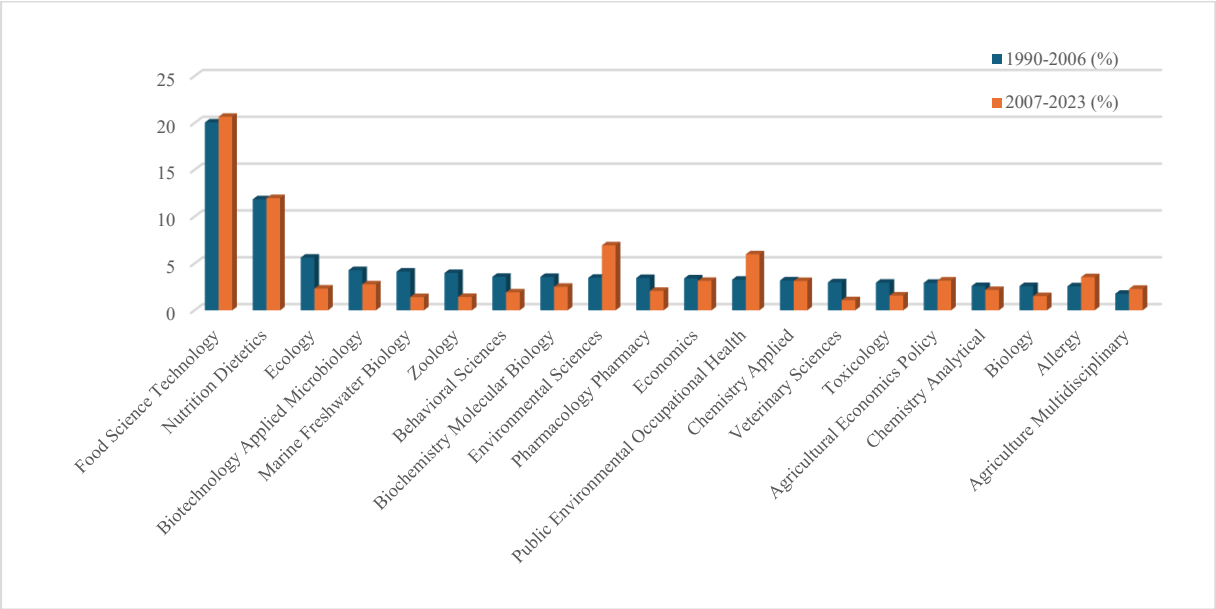
As can be seen in the conceptual flow, the main problem area in the article is determined as climate change before reaching the food problem. However, since climate change has a very wide range as a field of study, the topic is limited and the food issue, and even some niche areas of food, are scrutinised. Although the framework of the article is shaped through concepts related to food, it is useful to briefly look at this relationship at the very beginning since climate change has a vital role for food. At this point, Wheeler & Braun [10], in their conclusions on the effects of climate change on food, state that malnutrition and hunger will be much worse in the next 20-30 years. In the sections following Graph 1, it is analysed that the food problem is a matter of total planning, not the impact of climate change on food.

Although the identification of the food problem in this article is based on climate change, as Gregory, Ingram, & Michael [11], point out, there are many factors such as urbanisation and globalisation that affect food systems besides climate change. Inequalities in food and food insecurity do not depend on a single factor such as climate change, so it would be more accurate to look at the issue from different perspectives [12]. For this reason, looking at the bibliometric studies in which the concepts of food and climate change are mentioned separately or together will make it easier for us to make some inferences about the historical development of the concepts (see Graph 1).



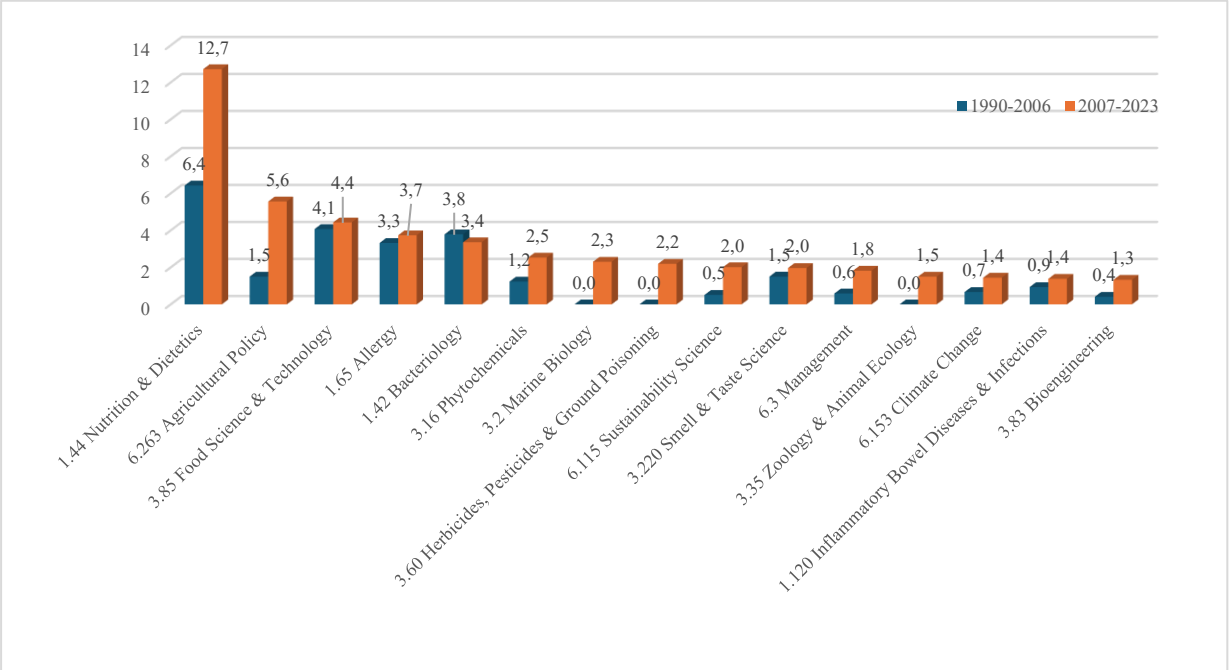

Graph 1: Number of references in the Scopus database where the concepts are mentioned in the topics of academic publications (1980-2023)

The food curve in Graph 1 shows two points of increase in 2007-2008 and 2020. As can be seen in the graph, it is observed that research in the field of food started to increase approximately in 2000, and after 2007-2008, this increase caught a logarithmic acceleration. It can be said that this increase in 2007-2008 is related to the global food crisis, while the increase in 2021 is related to the Covid-19 outbreak. The 2019 Covid-19 pandemic has shown us how unprepared we are at the international and local level in terms of food [13]. In this sense, as stated in the aim of the article, the importance of every practical study on food has increased even more. Looking at the graph (see Graph 1), 2007 was determined as the threshold year to see the general trends that may affect the present day regarding the concepts of food and climate change. In the period defined as the 2008 crisis in some sources and the 2007-2008 crisis in others, disruptions and dead ends were experienced in the food chain on a global scale. Harvey [14], also noted that capitalism is constantly prone to crises. The 2007-2008 crisis was caused by a combination of declining agricultural productivity, export restrictions in many countries, reduced transparency in markets, lack of regulation of financial participation in food commodity markets, and policy failures that were already bad [15]. While the crisis led to an increase in common commodity prices, it also served as a warning to the current world system, which is characterised by global drought, global and local poverty and underproduction, and protectionist policies by national governments [12]. Compounding the problem, climate change is predicted to increase the threat to food production [12], [16] [17]. Today, almost all academic studies recognise climate change as an effective factor in food insecurity, but there are also other factors such as changes in urban or rural areas and local market mechanisms. For this, it will be necessary to analyse the studies conducted in the field of food a little more. By taking 2007 as a threshold, it will be possible to determine in which direction the subject has changed or remained stable by looking at the studies carried out in the field of food before and after this date. For this, it will be roughly sufficient to look at the ratio of WoS database categories.




Graph 2: Percentage of WoS categories in which the concept of "food" appears in the titles of publications between 1990 and 2023

When the above graph comparing before and after 2007 is analysed, it is seen that there is an increase in the number of publications in studies on environment and agriculture (see Graph 2). Considering that the grouping used in the WoS database in the graph above may be general and therefore may lead to incorrect inferences, an evaluation was made based on another grouping in the WoS database, WoS meso citation groups (see Graph 3).




Graph 3: WoS meso citation groups where the concept of "food" appears in the titles of publications between 2007-2023

Despite possible errors such as transitions between categories over the years and the fact that publications are not categorised correctly, the overlap between the WoS categories and the results obtained through WoS meso citation groups strengthens the method. Looking at the graphs as a whole, it is clear that food has started to be studied not only in basic sciences but also in social sciences, environmental concerns and agricultural policies [18], [19], [20], [21], [22], [23]. In addition to the graphs, in the keyword analysis of the sources in which the concept of food was mentioned in the 1990-2006 period, health and medical terms such as hydroxydopamine, addiction, effect, brain, emotion, dopamine, nigrostriatal were found to be prominent. WHO [24], explains the health dimension of food with the concept of 'food safety' through globalisation, climate change and rapidly growing population. Food safety is linked to nutrition and food security [24]. As a result of the bibliometric analysis conducted in this direction, it was determined that the first concept that should be examined is food safety and the second concept is food security. Another reason for examining food security is the results of the bibliometric analysis, as will be seen in the next section. While

analysing these concepts, the relationship with cities, urban planning and planning was taken into consideration, not according to the degree of importance or academic volume of the concepts. This level of relationship determined the next concept search.

### *3.1. Food Safety*

FAO [25], defines the concept of food safety as 'the totality of hazards that may acutely or chronically harm consumer health'. Griffith [26], states that food safety, which started with salting, drying and fermentation of the first people, is synonymous with food hygiene and covers all processes during the processing and preparation of food for consumption. Fung, Wang, and Menon [27], state that food safety is still not achieved in the 21st century and that governments, producers, suppliers, distributors, and consumers should cooperate. Today, the World Health Organisation -WHO [24], states that food safety is linked to nutrition and food security, and that 420,000 people in the world still die annually due to infectious diseases such as bacteria, viruses and parasites due to food consumption. As Gerckens [28] states, food safety can be associated with rational comprehensive planning, which emerged after the second half of the 19th century, especially against disease, hunger and hygiene conditions in European cities. Today, when even comprehensive planning is widely debated and new planning approaches are slowly becoming dominant, discussing the relationship between food safety and planning will make it difficult for us to add a new dimension to the subject. This is because the flows and social concerns between the cities of the 19th century and today's cities have changed a lot despite some similarities.

In Graph 2 and Graph 3, it was revealed that the post-2007 period signalled a new era in which issues such as climate change, sustainability and agriculture came to the fore, beyond the studies that mostly associated food with health and diet. Therefore, it can be said that food safety has been replaced by a new concept or concepts in the post-2007 food debates. The possibility that these new concepts may be concepts other than food safety, which is linked to food security as stated by WHO [24], has led us back to the bibliometric analysis. In the bibliometric analysis, in addition to the concept of food, the concept of 'urbanization', one of the most important spatial branches of planning, and the concept of 'agriculture', one of the natural areas to be protected, were included and synthesised. In the bibliometric analysis conducted by keyword analysis, the first five rankings in the keyword table that emerged in the triangle of "food", "urbanization" and "agriculture" were as follows: urbanization (162), food security (132), urban agriculture (137), agriculture (94) and climate change (60). Although urbanization, agriculture and urban agriculture are the usual keywords in the ranking, the predominance of a new concept such as food security and the fact that WHO [24] also states that food security is linked to food safety has ensured that food security is included in the next step of the conceptual flow in the article.

### *3.2. Food Security*

Although there are different definitions of the concept of food security, similar definitions can be seen in the main international food-related organisations. Food security is defined as "the ability to supply sufficient food worldwide and at all times... to maintain stable food consumption, to compensate for price fluctuations... [29], ensuring physical and economic access to the staple foods that everyone needs at all times [30], "providing enough food for everyone on a regular basis" [31], "ensuring physical and economic access to sufficient, safe and nutritious food that meets the dietary needs and food preferences of all people at all times for an active and healthy life" [32]. More widely recognised, food security has four dimensions: availability, access, utilisation and stability [33]. It is envisaged that food security will be achieved if these four dimensions are met. Food security is a concept frequently encountered in the literature on food. The reason for this frequency can be considered as the lack of a clear solution to food security. The reason for not finding a solution is that the problem area is generally sought in external factors, not structural ones. In the bibliometric analysis, the reasons why urbanisation points to food security can be understood in the four dimensions. In particular, the availability, access and utilisation of food is directly related to the city and urban dwellers.

In 2050, the world population is expected to reach ten million people [29] and the rate of urbanisation is increasing. Although the proportion of land occupied by urban areas has traditionally been relatively small, it is now expanding rapidly due to increasing population, industrialisation and wealth [34]. The number of people living in urban areas has increased from 36 per cent in the early 1970s to 55 per cent today and is projected to increase to 68 per cent by 2050, driven mainly by population growth in Asia and Africa [29]. The amount of land covered by urban areas is also expected to increase from 213 million hectares (1.6 per cent ice-free land) in 2000 to 621 million hectares (4.7 per cent) by 2040 [35].

Urbanisation is directly and indirectly included in the UN Sustainable Development Goals. It seems inevitable to update the planning literature on the link between urbanisation, urban sprawl and food systems, and to open new areas for discussion and action. Food systems, especially in developing countries, are increasingly feeling the pressure of urbanisation. Smit [36] views food systems as a chain of activities that take place within the geographical context of a particular city where food is consumed, linking regulatory institutions and activities associated with food production, processing, distribution, consumption and waste management. However, food systems are not limited to rural areas or cities, and it has become difficult to make distinctions such as urban-rural, urban centre and periphery. The most important effect of urbanisation on food is the decrease in the land available for agriculture. In addition to providing 98.8 per cent of human food, land is an important and easily sacrificed value, from carbon storage and greenhouse gas regulation to flood mitigation [34]. Therefore, crop production losses are expected to increase with urbanisation, and these losses are expected to be greatest in China and Sub-Saharan Africa [35]. Ziervogel & Ericksen [12] put urbanisation in the category of measures that can be taken at the national level. It is expected to increase the resilience of food systems against factors such as climate change and urban sprawl, land use, changing lifestyles, new food habits and market structure [5], [16]. How this resilience can be increased in the light of planning practices and tools pushes the boundaries of food security.

In the bibliometric analysis, China, India, sustainability, urban agriculture, land use, climate change, sustainable development, land use change, sustainable development, land use change, food production are other concepts that are frequently used together with food security in the triangle of food, urbanisation and agriculture. These concepts show that the existing problems, which traditional planning is also concerned with, cannot be solved. At this point, it can be said that new searches and solutions should emerge.

Maxwell [37] analyses the changes in post-modern thinking on food security since the 1974 World Food Conference [38] and states that this change has evolved with post-modern paradigms. This evolution process has undoubtedly paralleled with planning processes. According to Olesen [39], planning entered a process of neoliberalisation after the 1980s; in the 1980s, there was a so-called "roll-back" period in which the state withdrew. In the following periods, it cannot be said that food policies have become more

humanised. In this period when food has become a profit and the world's biodiversity has been sacrificed [40], it can be said that cities have also become a tool. Increasing income inequality leads more and more people to struggle to feed themselves and their families [17]. In this process, increasing production should not be the only goal in the face of biodiversity wasted for easy gains; the optimisation of environmental and social justice should also be sought [40]. It is seen that the search for justice and equity that Fainstein [41] seeks for cities should be sought in the field of food as in all areas of life. Current international trade regimes, regional and national markets in food are insufficient to deal with inequalities and challenges [12]. In this direction, the existence and impact of new and alternative food systems are worth investigating. In this article, "food security", which falls under the conceptual filter, is not directly evaluated through planning tools; instead, the concept is tried to be analysed within the framework of planning's recent quest for justice. This constitutes one of the unique values of the article. As Marquse [42] points out, one strand of planning, especially in recent times, has been in search of social justice. Planning has to re-evaluate its purpose of serving the public and not the market. Therefore, the concept of "equity" is finally integrated into the bibliometric analysis filter in the article as a new value and pursuit.

In the bibliometric analysis, in the Wos database, the order in the keyword table in the sources where the concepts of "food security" and "equity" are mentioned together in the subject-specific subject continues as food security, health equity, equity, climate change, sustainability, food sovereignty. When the concepts of food security and equity are synthesised together, the concept of "food sovereignty" draws attention as a different concept. In the 2007 Nyeleni Declaration [43], when the components of food sovereignty are analysed, it is seen that food sovereignty and planning have some structural intersections. These are some values that can be further elaborated such as localisation of food systems, valuing producers, focusing on food for people, working in partnership with nature. Therefore, in the rest of the article, it is tried to analyse what the pros and cons of food sovereignty are within the planning systematic and what kind of potentials it contains. Therefore, where the limits of food safety are pushed, food security becomes evident, and where the limits of food security are pushed, food sovereignty becomes evident. In the bibliometric analysis, when the concept of equity is synthesised with food security, it is seen that food sovereignty stands out. Thus, the intersection of planning and food sovereignty with the bridge of equity seeking can be seen as a finding that emerged at least in the literature analysis. In the following section, the transition from food security to food sovereignty, the emergence of food sovereignty, its basic arguments, the scope of food sovereignty, its place in the global food system are analysed and the importance of all these dimensions from a planning perspective is mentioned.

### *3.3. Food Sovereignty*

The term food sovereignty was coined by La Via Campesina (LVC) at the World Food Summit in 1996. La Via Campesina is a movement founded in 1993, which started out as a peasant and farmer movement. However, both the scope of this movement and the definition of the concept of food sovereignty have developed over time. Today, the aim of many international organisations in their food policies is food security rather than food sovereignty. International trade in agricultural commodities is at the centre of many nations' food security systems and is a source of livelihood, especially for small-scale farmers. However, global food systems are seen to increase food insecurity and weaken livelihoods [44]. According to La Via Campesina [45], food sovereignty is a precondition for real food security. McMichael [46] also stated that food sovereignty emerged as the antithesis of food security. As an alternative to food security, food sovereignty is defined as the right of local peoples to control their own food systems, such as markets, ecological resources, and modes of production [47].

Although some researchers [48], [49] have also stated that food sovereignty is not necessarily in conflict with food security, they also state that food sovereignty offers more than food security. Steckley, Civil, Osna, Steckley, & Sider [50] put food sovereignty one step after food security and state that it opens up spaces for land ownership, rural labour, land practices, traditional and imported foods, gender relations, cultural values and how food systems affect health. The basis of food sovereignty is the right of people to design food policies and the right to have a fundamental right to food (Patel, 2009). In other words, food sovereignty is about the right to have rights. Wittman [47] places food sovereignty on foundations such as trade regime, agricultural reform, transition to agroecological practices, gender equality, protection of indigenous property rights. Burnett & Murphy [44] state that one of the most powerful aspects of food sovereignty is its orientation towards local markets. The Declaration of Nyeleni of the Food Sovereignty Forum in Mali in 2007, which can be regarded as a turning point for food sovereignty work, set out six goals for food sovereignty, including basing food on more humane principles, respecting nature, environment and land, and emphasising the importance of local actors.

External threats such as dwindling fossil energy resources and climate change lead to the emergence of grassroots movements and increased interest in local food production [51]. In this sense, food sovereignty is seen as a preparation against the uncertainties of capitalist crisis. Moreover, as Patel [52] points out, food sovereignty is both a goal and a process. In this preparation process, growing food and reconnecting people to ecological values offer important synergies and increase social consciousness [51]. The reflection of this increased consciousness on space through effective urban and regional policies will be effective in the change and transformation of the current food system. McMichael [46] states that after the 2007-2008 food crisis, food sovereignty has developed and changed along with food regimes. One of the pillars of this change is undoubtedly its place in national, regional and urban policies. Both in the literature analysis and when the aims of the Nyeleni Declaration are analysed, as Patel [52] states, food sovereignty is a comprehensive tent. Anderson & Bellows [53] state that the content of food sovereignty includes local food production, the development of small-scale family and peasant farming, the protection of indigenous peoples' access to land and property, the promotion of women's rights, agricultural and land use reform, the use of traditional and local knowledge in food production, and a fair trade policy.

Food sovereignty has spread from La Via Campesina, a global peasant movement, to France, to the State of Vermont in the United States of America [54]. Food sovereignty policies have been implemented by governments in Ecuador, Venezuela, Mali, Bolivia, Nepal and Senegal [55]. Food sovereignty is not just a peasant movement, but calls for urban actors, the Global North and ultimately a comprehensive agricultural infrastructure [52]. Grey and Patel [56] argue that food sovereignty encompasses different positions and struggles within food systems and that this is evidence that the concept is viable. Holt-Giménez & Altieri [57] argue

that food sovereignty, like food security, needs to make strategic collaborations with alternative structures such as agroecology. van der Ploega [58] states that peasantry has also differentiated and that peasant agriculture should be adopted, not just peasants farming. Today, the spread of agricultural practices such as urban gardens, urban agriculture and agroecology in urban environments also shows that agriculture is not only a peasant movement. Food sovereignty is also open to the positive contributions of technological developments to food. In this sense, as supported by the fifth objective in the Nyeleni Declaration, it does not advocate the idea that food production can only be provided by small-scale farmers without using any technology.

Agarwal [59] states that food sovereignty emphasises the rights of women and other disadvantaged groups, which is important in the field of democratisation. Food sovereignty not only conceptualises issues such as food insecurity, food intake, environmental concerns, but also includes holistic policy areas such as poverty alleviation, elimination of inequalities, democratic decision-making processes on agriculture and environment, decentralised food systems [52]. This aim of democratisation in food sovereignty is similar to the issue of participation in urban decision-making, which urban planning has been focusing on and struggling with for a long time. In this sense, it is important that every decision in urban or rural areas is adopted by the people and communities in their own region. Food sovereignty, as one of the movements that emphasise the local against globalisation, stands out in theory and practice in the field of food. Food sovereignty has attracted the attention of some authors [60], [61], [62], [47], [53], [63] as an increasingly effective and visible structure resisting a neoliberal food regime. In contrast, Ayres and Bosia [54] argue that localism as a collective stance against structural crises in global capitalism has been overshadowed and marginalised. Tilzey [64] questions why the natural reality of capitalism always chooses the economy over the different layers of economy, society and environment. Grey & Patel [56] express this situation as the incompatibility of liberal pluralism, capitalism's form of political participation, with food sovereignty. However, in fact, food sovereignty does not aim completely against localisation or global trade. Agarwal [59] explains this situation through the fact that farmers currently turn to various markets instead of turning to local markets, use some chemicals, and turn to high prices, showing that the practical legitimacy of complete localisation is weak.

While there are many NGOs and social movements around the world that embrace food sovereignty, the rate of adoption by public authorities is not very high. Hospes [65], describing the advocates of the concept as an epistemic community, states that the confusion about food sovereignty has not been eliminated and that there is no solution on how to reconcile food-related institutions and that the concept is at an impasse. Borras Jr., Franco, & Suárez [66] argue that the studies so far have developed outside the state, which may not be in line with the purpose of food sovereignty. Bernstein [48] draws attention to the way food sovereignty perceives "peasants" and the uncertainties about how low input and labour intensive practices such as agroecology will feed the world. The criticisms have changed food sovereignty since its inception in 1996 and brought it to a different point. Food sovereignty is included in many national policies, local spatial studies and academic studies in different disciplines. Nevertheless, food sovereignty can be seen as an area of discussion and practice that is still criticised and open to development. One of these development areas is its place in planning policies and practices in urban and regional environments. Hospes [65] stated that it should be ensured that food sovereignty can be seen as an initial discussion rather than a conflict with public authorities. A road map is needed to ensure that food sovereignty is not seen as a threat by public authorities, but as a solution-oriented area of discussion and policies.

Sage [51] argues that food crises have led to the emergence of not only the participation of citizen groups, but also the participation of city and regional governments. In this sense, the cooperation of public and private actors, their impact on urbanisation and land use decisions, and their targets for transport and infrastructure need to be developed. Another important issue at the intersection of planning and food sovereignty is the alienation of labour. Bayırbağ & Penpecioğlu [67] state that in urban crises, people become dispossessed and alienated from cities. Similarly, Tilzey [64] states that in the current food system, labour is alienated from the land. Raja et al. [68] state that planners should do their best to preserve small farmers' control over food systems, especially over land and water, and that land use changes and land grabbing should be prevented and prioritised in local and national policies. In the conclusion section, the concepts of food safety, food security and food sovereignty, which were analysed separately during the planning literature review, are compared. Then, the relationship between planning and food sovereignty, which can be more clearly linked with planning in the concept filter, is analysed.

## 4. Conclusion

In the table above, a concept analysis has been made for the concepts in the literature section of the article. As a result of analysing and comparing frequently used concepts with each other from the perspective of planning, it is seen that food sovereignty is more inclusive, has a predominant social dimension, can include spatial policies and can be related to planning. After this acceptance, the conceptual flow of the article was finalised at this point and it was thought that food sovereignty could be the sufficient step for action areas. In this direction, in the table below, the relationship between the concepts of food sovereignty and planning is analysed through some criteria, although they are in different categories.

Although planning has been used for different purposes in the history of urbanisation, the social justice role of planning is highlighted in this article. As seen in the table above, food sovereignty overlaps with the basic principles and fields of action of planning. Just as there are serious criticisms of market-based comprehensive rational planning today, existing food systems are also subject to similar criticisms in terms of production, consumption, inequalities and hunger. Against the current global food system, food sovereignty can be seen as a new area of discussion and solution. Even the radicalisation criticisms against food sovereignty can be useful at some point. In planning, radical planning, pioneered by John Friedmann, has essentially been a movement and a field of debate against modernist planning, trying to be the voice of the voiceless. Harrill [69] argues that planners should balance their role as advocates, negotiators and interpreters with policies that promote radical planning. However, the equivalent of food sovereignty in planning can be associated not only with radical and rebellious planning but also with strategic spatial plans and action plans. Although its policies have evolved over time, La Via Campesina, the founder but not the sole representative of the food sovereignty movement, currently has 180 local and national organisations in 81 countries in the Americas, Asia, Europe and Africa. Food sovereignty is increasingly included in national plans and examples of its implementation are increasing. Criticisms of food sovereignty such as marginalization, radicalization and inadequacy should be considered. But it should not be abandoned in favour of alternatives to mass consumption and unsustainable growth [54]. Due to the political economy of agriculture [58], marginalizing it as a peasant movement may lead us to ignore the pluses of the system, undermining the climate crisis, the farm-to-fork strategy and community power.

Tab. 1: Comparison of three food-related concepts

| | Food Safety | Food Security | Food Sovereignty |
|---|---|---|---|
| **Approach** | Rational | Reformist | Innovative/Radical |
| **Main Purpose** | Provision of foods that do not harm human health | Access to adequate and healthy food always | Right to food, Eradication of hunger |
| **Action Areas** | Projects for clean water and food | Action to end agricultural subsidies, food insecurity and hunger | Community food systems, peasant and farmer unions and movements |
| **Basic Institutions** | World Health Organisation, National Food and Drug Administration | World Bank, FAO, UN Commission on Sustainable Development, some Food Policy Councils | La Via Campesina, International Food Sovereignty Planning Committee |
| **Food-related policies** | Taking agricultural and medical measures for food production, distribution and consumption processes | Instrumental policies for the availability, access, utilisation and stabilisation of food | Abolition of corporate food monopoly, peoples' rights to water and land, agroecological methods, gender equality, participation in food decision-making processes |
| **Actors** | Farmers, relevant central authorities, consumers | Governments, national and international organisations | Local farmers and villagers, non-governmental organisations, all local producers and consumers |
| **Concerns** | Hazards that may acutely or chronically harm consumer health | Chronic food insecurity | Climate change, capitalist economic crises, growth-centred system, alienation of rural labour |

Tab. 2: Comparison of food sovereignty and planning

| | Food Sovereignty | Planning |
|---|---|---|
| **Main Purpose** | Right to food, Eradication of hunger | Public interest, social justice, community rights over urban sprawl |
| **Spatial Application and Tools** | Agroecological agriculture, community gardens, urban agriculture, home production | Strategic spatial planning, radical planning, insurgent planning |
| **Food-related policies** | Abolition of corporate food monopoly, peoples' rights to water and land, agroecological methods, gender equality, participation in food decision-making processes | Political ecological practices, land use regulation, protection of agricultural areas and water resources, implementation of no-growth policies, participation in plan decision-making processes |
| **Actors** | Local farmers and villagers, non-governmental organisations, all local producers and consumers | Central and local administrations, professional associations, capitalists, property owners, citizens |
| **Concerns** | Climate change, capitalist economic crises, growth-centred system, alienation of rural labour | Capitalist crises, social inequalities, alienation of urban labour, ecosystem degradation due to excessive growth |

As Bernstein [48] points out, it would be better to pay more attention to empirical knowledge and practices rather than sacrificing intellectual pessimism towards food sovereignty to goodwill. Therefore, food sovereignty should not be seen merely as a sympathetic stance and utopia. Recently, food sovereignty has been increasingly addressed in empirical studies [70], [50] with different analyses in different countries. Again, despite the failure of food insecurity measures, the number of spatial studies [71], [72] trying to fill the gap is increasing. Although there is not much value in talking about food security in a world where political regimes can change overnight [6], as Harvey [14] states, planning is expected to have an ideology and planners are expected to struggle in defence of certain values. Accordingly, food sovereignty should not be seen as a rebellion against the existing system, but as an alternative and supportive model and a field of struggle. As stated by [73], the importance of institutions is directly proportional to the level of development of countries and the sustainability of the system. At this point, the possible contributions of the planning institution, which has social, spatial and economic tools, to the food system, which is prone to crises, should not be underestimated.

As a result, food sovereignty has been reached when food, one of the problems affected by climate change, is analysed from the perspective of planning. The permanent inclusion of food sovereignty in the planning discipline will have a radical, positive impact on the food problem. After accepting that food sovereignty can be a field of action worth discussing and implementing in different fields of planning such as urban, peri-urban and rural areas, the task to be done should be to develop a methodology on how food sovereignty will be a measurable tool for cities and how it will be integrated into the system.

**References**


1. WMO, "State of the Global Climate 2023 report.," WMO, 2023.
2. IPCC, "Climate Change 2023: Synthesis Report, Summary for Policymakers. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)].," IPCC, Geneva, 2023.
3. K. Pothukuchi and J. L. Kaufman, "The Food System," *Journal of the American Planning Association,* vol. 66, no. 2, pp. 113-124, 2007.
4. L. Mumford, The City in History: Its Origins, Its Transformations, and Its Prospects, New York: Harcourt Brace Jovanovich, 1961.
5. A. A. Hatab, M. E. R. Cavinato, A. Lindemer and C.-J. Lagerkvist, "Urban Sprawl, Food Security and Agricultural Systems in Developing Countries: A Systematic Review of the Literature," *Cities,* vol. 94, pp. 129-142, 2019.
6. A. Y. Prosekov and S. A. Ivanova, "Food Security: The Challenge of the Present," *Geoforum,* vol. 91, pp. 73-77, 2018.
7. T. Varzakas and S. Smaoui, "Global Food Security and Sustainability Issues: The Road to 2030 from Nutrition and Sustainable Healthy Diets to Food Systems Change 2024," *Foods,* vol. 13, no. 2, pp. 1-29, 2024.
8. N. Donthu, S. Kumar, D. Mukherjee, N. Pandey and W. M. Lim, "How to Conduct A Bibliometric Analysis: An Overview and Guidelines," *Journal of Business Research,* vol. 133, pp. 285-296, 2021.
9. A. Sayer, Sosyal Bilimlerde Yöntem: Realist Bir Yaklaşım, London: Küre Yayınları, 2019.
10. T. Wheeler and J. v. Braun, "Climate Change Impacts on Global Food Security," *Science,* vol. 341, no. 6145, pp. 508-513, 2013.
11. P. J. Gregory, J. S. I. Ingram and B. Michael, "Climate Change and Food Security," *Philosophical Transactions of the Royal Society B: Biological Sciences,* pp. 2139-2148, 2005.
12. G. Ziervogel and P. J. Ericksen, "Adapting to Climate Change to Sustain Food Security," *Wiley Interdisciplinary Reviews: Climate Change,* vol. 1, no. 4, pp. 525-540, 2010.
13. C. Béné, "Resilience of Local Food Systems and Links to Food Security – A Review of Some Important Concepts in the Context of COVID-19 and Other Shocks," *Springer Link,* pp. 805-822, 2020.
14. D. Harvey, "On Planning the Ideology of Planning," in *In The Urbanization of Capital*, Baltimore, MD: Johns Hopkins University Press, 1985, pp. 84-165.
15. D. Headey and S. Fan, "Anatomy of A Crisis: the Causes and Consequences of Surging Food Prices," *Agricultural Economics,* vol. 39, no. 1, pp. 375-391, 2008.
16. J. M. Bullock, K. L. Dhanjal-Adams, A. Milne, T. H. Oliver, L. C. Todman, A. P. Whitmore and R. F. Pywell, "Resilience and Food Security: Rethinking an Ecological Concept," *Journal of Ecology,* vol. 105, no. 4, pp. 880-884, 2014.
17. T. Benton, "The Many Faces of Food Security," *International Affairs,* vol. 92, no. 6, pp. 1505-1515, 2016.
18. J. Chen, "Rapid Urbanization in China: A Real Challenge to Soil Protection and Food Security," *Catena,* vol. 69, no. 1, pp. 1-15, 2007.
19. D. B. Lobell, M. B. Burke, C. Tebaldi, M. D. Mastrandrea, W. P. Falcon and R. L. Naylor, "Prioritizing Climate Change Adaptation Needs for Food Security in 2030," *Science,* vol. 319, no. 5863, pp. 607-610, 2008.
20. T. C. Ings, J. M. Montoya, J. Bascompte, N. Bluethgen, L. Brown, C. F. Dormann, F. Edwards, D. Figueroa, U. Jacob, J. I. Jones, R. B. Lauridsen, M. E. Ledger, H. M. Lewis, J. M. Olesen, F. J. F. van Veen and P. H, "Ecological Networks - Beyond Food Webs," *Journal of Animal Ecology,* vol. 78, no. 1, pp. 253-269, 2009.
21. D. Tilman, C. Balzer, J. Hill and B. L. Befort, "Global Food Demand and the Sustainable Intensification of Agriculture," *Proceedings of the National Academy of Sciences of the United States of America,* vol. 108, no. 50, pp. 20260-20264, 2011.
22. A. Hilmers, D. C. Hilmers and J. Dave, "Neighborhood Disparities in Access to Healthy Foods and Their Effects on Environmental Justice," *American Journal of Public Health,* vol. 102, no. 9, pp. 1644-1654, 2012.
23. J. Poore and T. Nemecek, "Reducing Food's Environmental Impacts Through Producers and Consumers," *Science,* vol. 360, no. 6392, pp. 987-992, 2018.

24. WHO, 2024. [Online]. Available: https://www.who.int/health-topics/food-safety#tab=tab_1. [Accessed 10 October 2024].
25. FAO, "TRADE REFORMS AND FOOD SECURITY: CONCEPTUALIZING THE LINKAGES," FAO, Roma, 2003.
26. C. J. Griffith, "Food Safety: Where From and Where To?," vol. 108, no. 1, pp. 6-15, 2006.
27. F. Fung, H.-S. Wang and S. Menon, "Food Safety in the 21st Century," *Biomedical Journal,* vol. 41, pp. 88-95, 2018.
28. L. C. Gerckens, "The Comprehensive Plan in the 20th Century," in *2001 APA National Planning Congress*, New Orleans, 2001.
29. UN, "World Population Prospects 2024," Department of Economic and Social Affairs, New York, 2024.
30. FAO, "World Food Security: A Reappraisal of the Concepts and Approaches," Food and Agricultural Organization, Roma, 1983.
31. UN World Food Council, "Towards Sustainable Food Security: Critical Issues," World Food Council, Nicosia, 1988.
32. World Food Summit, "Rome Declaration on World Food Security," 17 November 1996. [Online]. Available: https://www.fao.org/4/w3613e/w3613e00.htm.
33. FAO, "Food Security," FAO, Roma, 2006.
34. P. M. Kopittke, N. W. Menziesa, P. Wangb, B. A. McKennaa and E. Lombic, "Soil and the Intensification of Agriculture for Global Food Security," *Environment international,* vol. 132, 2019.
35. J. v. Vliet, D. A. Eitelberg and P. H. Verburg, "A Global Analysis of Land Take in Cropland Areas and Production Displacement from Urbanization," *Global Environmental Change,* vol. 43, pp. 107-115, 2017.
36. W. Smit, "Urban Governance and Urban Food Systems in Africa: Examining the Linkages," *Cities,* vol. 58, pp. 80-86, 2016.
37. S. Maxwell, "Food Security: A Post-Modern Perspective," *Food Policy,* vol. 21, no. 2, pp. 155-170, 1996.
38. UN, "Report of the World Food Conference," United Nation, Roma, 1975.
39. K. Olesen, "The Neoliberalisation of Strategic Spatial Planning," *Planning Theory,* vol. 13, no. 3, pp. 288-303, 2014.
40. H. C. J. Godfray, J. R. Beddington, I. R. Crute, L. Haddad, D. Lawrence, J. F. Muir, J. Pretty, S. Robinson, S. M. Thomas and C. Toulmin, "Food Security: The Challenge of Feeding 9 Billion People," *Science,* vol. 327, no. 5967, pp. 812-818, 2010.
41. S. S. Fainstein, The Just City, Londra: Cornell University Press, 2010.
42. P. Marquse, "The three historic currents of city planning," Blackwell Publishing Ltd., 2011.
43. Declaration of Nyeleni, "Declaration of Nyeleni," 2007.
44. K. Burnett and S. Murphy, "What Place for International Trade in Food Sovereignty?," *The Journal of Peasant Studies,* 2014.
45. La Via Campesina, "FAO & the Committee on World Food Security (CFS)," in *Tlaxcala Declaration of the Via Campesina II International Conference of the Via Campesina*, Tlaxcala, 1996.
46. P. McMichael, "Historicizing Food Sovereignty," *The Journal of Peasant Sudies,* vol. 41, no. 6, pp. 933-957, 2014.
47. H. Wittman, "Food Sovereignty A New Rights Framework for Food and Nature?," *Environment and Society,* vol. 2, no. 1, pp. 87-105, 2011.
48. H. Bernstein, "Food Sovereignty Via The 'Peasant Way': A Sceptical View," *The Journal of Peasant Studies,* vol. 41, no. 6, pp. 1031-1063, 2014.
49. J. Clapp, "Food Security and Food Sovereignty: Getting Past the Binary," *Dialogues in Human Geography,* vol. 4, no. 2, pp. 206-2011, 2014.
50. M. Steckley, M. Civil, W. Osna, J. Steckley and S. Sider, "A Community-Engaged Tool for Evaluating Food Sovereignty in Haiti and Beyond," *Agroecology and Sustainable Food Systems,* pp. 1-27, 2024.
51. C. Sage, "The Transition Movement and Food Sovereignty: From Local Resilience to Global Engagement in Food System Transformation," *Journal of Consumer Culture,* vol. 14, no. 2, pp. 254-275, 2014.

52. R. Patel, "Food Sovereignty," *The Journal of Peasant Studies,* vol. 36, no. 3, pp. 663-706, 2009.

53. M. D. Anderson and A. C. Bellows, "Introduction to Symposium on Food Sovereignty: Expanding the Analysis and Application," *Agriculture and Human Values,* vol. 29, no. 2, pp. 177-184, 2012.

54. J. Ayres and M. J. Bosia, "Beyond Global Summitry: Food Sovereignty as Localized Resistance to Globalization," *Globalizations,* vol. 8, no. 1, pp. 47-63, 2011.

55. H. Wittman, A. A. Desmarais and N. Wiebe, Food Sovereignty : Reconnecting Food, Nature & Community, Oxford : : Pambazuka, 2010.

56. S. Grey and R. Patel, "Food Sovereignty as Decolonization: Some Contributions from Indigenous Movements to Food System and Development Politics," *Agriculture and Human Values,* vol. 32, pp. 431-444, 2014.

57. E. Holt-Giménez and M. A. Altieri, "Agroecology, Food Sovereignty, and the New Green Revolution," vol. 37, no. 1, pp. 90-102, 2012.

58. J. D. van der Ploega, "Peasant-Driven Agricultural Growth and Food Sovereignty," *The Journal of Peasant Studies,* vol. 41, no. 6, pp. 999-1030, 2014.

59. B. Agarwal, "Food Sovereignty, Food Security and Democratic Choice: Critical Contradictions, Difficult Conciliations," *The Journal of Peasant Studies,* vol. 41, no. 6, pp. 1247-1268, 2014.

60. R. Patel and C. McMichael, "Third Worldism and the Lineages of Global Fascism: the Regrouping of the Global South in the Neoliberal Era," *Third World Quarterly,* vol. 25, no. 1, pp. 231-254, 2004.

61. R. Patel, "Global Fascism Revolutionary Humanism and the Ethics of Food Sovereignty," *Development,* vol. 48, no. 2, pp. 79-83, 2005.

62. P. Rosset, "Food Sovereignty and the Contemporary Food Crisis," *Development,* vol. 51, no. 4, pp. 460-463, 2008.

63. T. D. Beuchelt and D. Virchow, "Food Sovereignty or the Human Right to Adequate Food: Which Concept Serves Better as International Development Policy for Global Hunger and Poverty Reduction?," *Agriculture and Human Values,* vol. 29, pp. 259-273, 2012.

64. M. Tilzey, "Reintegrating Economy, Society, and Environment for Cooperative Futures: Polanyi, Marx, and Food Sovereignty," *Journal of Rural Studies,* vol. 53, pp. 317-334, 2017.

65. O. Hospes, "Food Sovereignty: the Debate, the Deadlock, and a Suggested Detour," *Agriculture and Human Values,* vol. 31, pp. 119-130, 2013.

66. S. M. Borras Jr., J. C. Franco and S. M. Suárez, "Land and Food Sovereignty," *Third World Quarterly,* vol. 36, no. 3, pp. 600-617, 2014.

67. M. K. Bayırbağ and M. Penpecioğlu, "Urban Crisis: 'Limits to Governance of Alienation'," *Urban Studies,* vol. 54, no. 9, pp. 2056-2071, 2017.

68. S. Raja, A. Parvaiz, L. Sanders, A. Judelsohn, S. Guru, M. Bhan, G. Osuri, M. Tak, Y. Mui and E. F. Boamah, "Planning and Food Sovereignty in Conflict Cities: Insights From Urban Growers in Srinagar, Jammu and Kashmir," *Journal of the American Planning Association,* vol. 89, no. 2, pp. 183-195, 2023.

69. R. Harrill, "Political Ecology and Planning Theory," *Journal of Planning Education and Research,* vol. 19, no. 1, pp. 67-75, 1999.

70. J. Nyholm, A. Walch and L. Redmond, "Traditional Food Security and Food Sovereignty in the Coastal Region of South-Central Alaska," *International Journal of Circumpolar Health,* vol. 83, no. 1, 2024.

71. C. Z. Levkoe and A. Blay-Palmer, "Food Counts: Food Systems Report Cards, Food Sovereignty and the Politics of Indicators," *Canadian Food Studies,* vol. 5, no. 3, pp. 49-75, 2018.

72. A. García-Sempere, H. Morales, M. Hidalgo, B. G. Ferguson, P. Rosset and A. Nazar-Beutelspacher, "Food Sovereignty in the city?: A methodological proposal for evaluating food sovereignty in urban settings," *Agroecology and Sustainable Food Systems,* vol. 43, no. 10, pp. 1145-1173, 2019.

73. D. Acemoğlu, S. Johnson and J. A. Robinson, "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review,* vol. 91, no. 5, pp. 1369-1401, 2001.