ŞEHİR VE BÖLGE PLANLAMADA İLERİ ARAŞTIRMALAR

Editör: Doç.Dr. Gözde EKŞİOĞLU ÇETİNTAHRA

yaz
yayınları

Şehir ve Bölge Planlamada İleri Araştırmalar

Editör

Doç. Dr. Gözde EKŞİOĞLU ÇETİNTAHRA

yaz yayınları

2024

yaz
yayınları

Şehir ve Bölge Planlamada İleri Araştırmalar

Editör: Doç. Dr. Gözde EKŞİOĞLU ÇETİNTAHRA

E_ISBN 978-625-6171-51-0

Aralık 2024 – Afyonkarahisar

Dizgi/Mizanpaj: YAZ Yayınları

Kapak Tasarım: YAZ Yayınları

YAZ Yayınları. Yayıncı Sertifika No: 73086

M.İhtisas OSB Mah. 4A Cad. No:3/3
İscehisar/AFYONKARAHİSAR

www.yazyayinlari.com

yazyayinlari@gmail.com

info@yazyayinlari.com

İÇİNDEKİLER

THE PLACE OF URBAN AGRICULTURE PRACTICES IN URBAN POLICIES DURING THE ADAPTING PERIOD TO CLIMATE CHANGE: AN EVALUATION THROUGH THE ANKARA[1]

Sevinç Bahar YENİGÜL[2]

Özlem GÜNGÖR [3]

1. INTRODUCTION

While cities are among the causes of climate change, they are also the most affected by the problems caused by climate change. Climate change and urbanization are in mutual interaction, and solutions to climate change are thought to be primarily achievable in cities. Nature-based solutions are among the contemporary approaches sought in cities to solve environmental problems, especially climate change. Nature-based solutions, which have environmental, economic, and social dimensions, aim to contribute to societal needs. They seek solutions to societal challenges such as adaptation to and mitigation of climate change, reducing disaster risks, ecosystem degradation and biodiversity loss, human health, socio-economic development, food and water security. Urban

---

[1] This study was produced from the master's thesis titled" Nature Based Solutıons For Adaptatıon To Clımate Change"

[2] Assoc. Dr. Gazi University, e-mail: yenigul@gazi.edu.tr Orcid: 0000-0002-4310-5369

[3] Urban Planner (Msc.), Ministry of Environment, Urbanization and Climate Change, e-mail: ozlemyaman783@gmail.com Orcid: 0000-0002-7740-4586

agriculture, among nature-based solutions, finds application areas for reducing and adapting to the impacts of climate change, creating sustainable food systems, local food production, protecting biodiversity, creating sustainable urban environments, and meeting the recreation needs in the city.

As cities become more vulnerable with disasters, food and nutrition problems also increase. Drought caused by global warming affects agricultural production, making access to food more difficult. Studies predict that agricultural yield will decrease with climate change, leading to a decline in food productivity (Bouteska et.al. 2024). The economic policies applied in the global system also affect the process, making access to food more difficult with the impact of environmental problems. While the production policies of the capitalist economy affect agricultural production, the dependence on foreign countries increases in countries undergoing transformations in agricultural policies. Cities lose their self-sufficiency, and extended supply chains cause cities to feed themselves from further and more costly distances. In periods of disruptions in the global market, supply issues are experienced in importing cities. During the pandemic, the fragility of the food system, closures, and restrictions caused disruptions in the supply chain activities from production to distribution, making access to fresh food difficult in cities. During this period, millions of people worldwide lost their income, and purchasing power decreased, increasing the problem of food security with rising costs along with transportation and logistics, food spoilage, and waste. In times of crisis, even in developed countries, the urban population faced food crises due to the industrial food and conventional agriculture sector (Swinnen and McDermott 2020). During this period, major metropolises

experienced problems in accessing food, and there were even occasional interruptions.

All these processes have brought solutions that enable cities to feed themselves from within back into the agenda. The necessity for cities to develop their food systems and to develop policies towards self-sufficiency emerges. With disasters, production shortages, increasing population, consumption habits, food supply, and inflation make the food problem in cities a concern, and the importance of agriculture in urban policies increases again. While the expansion of cities over agricultural lands causes the loss of fertile areas, the agricultural sector is also adversely affected by climate change, severe drought, and extreme weather events like irregular heavy rains. To mitigate these adverse effects, urban agriculture also creates advantages for reducing the carbon footprint. Urban agriculture has positive effects on reducing emissions from transportation by shortening the logistics distance. Urban agriculture practices today can meet 20% of the world's food needs. Successful developments are seen in countries like the USA, Canada, Cuba, Spain, France, and Japan (Kapan and Öztoprak 2020; Güngör 2024).

In this context, this study evaluates the place of policies towards urban agriculture in metropolises within urban policies through the city of Ankara in Turkey. Examinations specific to Turkey show that urban agriculture is not included in central government policies, and existing practices at the local level are limited, emerging as individual projects implemented by various institutions not within a system. This finding is considered a situation negatively affecting urban agriculture practices in Turkey. This study evaluates the current state of urban agriculture practices in the city of Ankara.

2. THE IMPORTANCE OF AGRICULTURE IN THE CONTEXT OF FOOD SECURITY

As the importance of agricultural production within urban food policies increases, innovative approaches and regulations are also needed in the sector. When examining the urbanization literature, transitions from agricultural society to industrial society and to the information society we live in have caused and continue to cause shifts between sectors. While modern cities exclude agriculture, the urban planning approaches of the time considered agriculture as an incompatible concept with the city. However, with the spatial change in contemporary cities, this is no longer acceptable, and agricultural activities in metropolises that include agricultural areas need to be reintegrated with the city (Renard, 2019).

The increasing demand for food supply and the search for healthy food have led to a rise in the importance of the agricultural sector, while also creating expectations for the development of new agricultural activities and approaches. These expectations necessitate planning for the demand for qualified labor in the agricultural sector. While the protection of the environment, nature, and agricultural lands, which produce the primary raw materials of food, holds great importance in sustainable development goals, discussions on the development of concepts such as green economy, green sector, and green jobs emphasize the need for transformation in agriculture and agricultural employment within the scope of green jobs.

Projections suggest that the declining share of the agricultural sector in employment and gross national product from past to present will increase again today (ILO, 2013; T.C. Ministry of Development, 2018; T.C. Ministry of Labor and Social Security, 2014). The importance of the agricultural

sector, discussed in environmental, social, and economic dimensions, has started to be recognized again, especially during the pandemic and climate change, due to its impact on cities. In this context, it is important to develop policies aimed at increasing local food production in cities (T.C. Ministry of Agriculture and Forestry, 2020).

Policies are needed to economically, socially, and environmentally reintegrate agricultural production into urban areas and make it sustainable. In historical processes, while agricultural plans emphasized production plans, the importance of agriculture during modernization was highlighted by theorists, designers, and planners during the First and Second World Wars. Frank Lloyd Wright, who had a completely different approach, integrated agriculture with the city in Broadacre City, which had low density (Wright, 1935). Similarly, in 1922, Le Corbusier proposed a model for the administration and control of land by dividing the city into three different food production areas in his Contemporary City proposal.

Approaches that see agriculture as an incompatible sector with the city are being updated with the urbanization dynamics of the 21st century. The spatial development of cities, expanding by spreading out, causes them to incorporate agricultural lands and activities. Awareness of the threat of urban agricultural lands disappearing due to the impact of industrialization began during the industrial revolution in England, and Ebenezer Howard's garden city approach can be seen as the relationship between the city and agriculture of that period (Akyol and Tunçay, 2013; Gataric et al. 2019). The growth of the urban macroform requires thinking about cities together with agriculture. Studies on the subject indicate that the concept of

urban agriculture has begun to be widely used in recent years in the integration of agriculture with cities.

Urban agriculture is defined as plant and animal production within or around the city, in harmony with the city's economy and ecology, and is seen as an important opportunity for cities to be self-sufficient in feeding themselves. Urban agriculture reduces the distance between producer and consumer, facilitates access to reliable food, contributes to family budgets, and creates new job opportunities, contributing to the urban economy. Research highlights the importance of urban agriculture in greening cities, waste management, and combating climate change. These studies also draw attention to the economic dimensions of urban agriculture practices, such as reducing poverty, food and nutrition security, income generation, creating employment for women and youth, supporting small-scale enterprises, and providing advantages for local production and consumption in cities. The United Nations Sustainable Development Goals (SDGs) argue that there is a need for comprehensive inter-sectoral and inter-institutional cooperation between environmental, social, and economic areas and see urban agriculture as a tool that can also produce solutions for issues such as poverty, hunger, and climate change.The issue, whose importance has increased further due to disruptions, has begun to be discussed more intensively by policymakers, academics, and non-governmental organizations, especially the United Nations (UN), World Health Organization (WHO), and Food and Agriculture Organization (FAO). During food crises, it has been observed that weakening local producers, making them more dependent on external sources, and disruptions in supply chains also cause food insecurity. This process deepens further in food-importing cities, making the

situation more difficult to manage (Pulighe and Lupia, 2020; FAO, 2020).

The relevant literature draws attention to the global problem of ensuring regular and healthy nutrition in cities. The view has emerged that urban administrations, especially local governments, should play an active role in solving the problem. During the pandemic, it was argued that the issue should become a policy area that needs to be resolved beyond discussions. At the UN Habitat III meeting (UN, 2017), National Governments suggested in the "New Urban Agenda" report that local governments, as important actors in urban administrations, should take responsibility in the above-mentioned issues. In this context, it has been concluded that overcoming obstacles to ensuring access to adequate food, an important element in improving the quality of life, and the role and responsibilities of local governments in protecting and using environmental and natural resources that affect quality of life and in increasing welfare levels should be acknowledged.

It has been suggested that cities should be able to feed themselves from within and from their immediate surroundings, that food supply issues should be under the responsibility of local governments, and that necessary organization should be carried out for this supply chain (FAO, 2007). These policies should include: i.Facilitating effective trade connections within the continuity of urban and rural areas, ii. Ensuring that small-scale farmers and fishers are connected to local, national, sub-national, regional, and global value chains and markets, iii. Strengthening the role of small and medium-sized cities and towns in developing sustainable, affordable food systems, iv. Encouraging and supporting cooperation and mutual solidarity between cities and settlements of different scales, v. Enabling urban agriculture and farming as well as responsible, local, and

sustainable production and consumption through accessible networks, while supporting social interactions to contribute to sustainability and food security (UN, 2017).

Examining the relevant literature reveals a need for transformation in agricultural production methods to ensure food security in cities. The issue, which is a significant public concern, must be seen as a problem that requires a solution involving central and local government actors, civil society organizations, and mechanisms for social participation (Wilkins, 2005; Renting et al. 2012; Prost et al. 2018). In the current food system, the costs (such as transportation, storage, intermediaries, etc.) involved in the production and delivery of food to the market increase food prices, making it difficult for the poor population to access cheap and reliable food. This situation makes it necessary for cities to produce food within themselves and in the nearest production areas possible to feed themselves at lower costs (Zezza and Tasciotti, 2010; Indraprahasta, 2013; Ernwein, 2014; Schmidt et al. 2015; Yenigül and Camkurt, 2019).

3. URBAN AGRICULTURE:REINTEGRATING AGRICULTURE INTO CITIES

Urban agriculture, which has begun to be seen as an important tool in sustainable urban development policies, has been discussed in public policies and academic studies over the past decade. Global discussions on urban agriculture started with Habitat meetings and have also been on the agenda of international organizations such as the United Nations Development Program (UNDP), the Organization for Economic Cooperation and Development (OECD), the Resource Center on Urban Agriculture and Food Security (RUAF), and the Food and

Agriculture Organization (FAO). These organizations define urban agriculture as "plant and animal production within or around cities that is compatible with the urban economy and ecology."

Urban agriculture is known to provide economic and social benefits, especially for disadvantaged groups migrating from rural areas to cities in less developed and developing countries, whose integration into urban life takes time. Urban agriculture helps these disadvantaged groups secure food and income, aiding their adaptation to urban environments. It also serves as a tool for the employment of the poor, women, and those working in the informal sector in cities, helping alleviate the challenges they face during the transition to new urban work conditions. This issue, seen as a significant problem for a considerable portion of the population in metropolises, also presents an opportunity by creating employment security through agricultural production (ILO, 2013; RUAF, 2022; Yenigül and Camkurt, 2019).

The relevant literature suggests that agricultural activities within cities should be conceptualized differently from traditional agriculture (Yenigül, 2016). Research highlights the importance of urban and peri-urban agriculture in greening cities, waste management, and combating climate change. These studies also discuss the economic dimensions of urban agriculture, emphasizing its role in reducing poverty, ensuring food and nutrition security, generating income, creating employment for women and youth, supporting small-scale businesses, and offering advantages for local production and consumption (ILO, 2013). The International Labour Organization (ILO) views urban and peri-urban agriculture as a job and income-generating opportunity for self-employed farmers, wage workers, youth, and women. It points out that urban and peri-urban agriculture is

suitable for cooperativization, can facilitate market-oriented production to improve access to food in cities, and can enable women to organize for food production, thus engaging in activities outside of childcare and household duties. Urban agriculture is anticipated to create job opportunities for women, youth, and rural migrants, generating income opportunities in other sectors through its multiplier effect. It offers not only daily, seasonal, or permanent work arrangements but also part-time work opportunities as secondary jobs (ILO, 2013).

When examining countries that have implemented these practices, it is observed that urban agriculture has developed as a widespread and fundamental activity in countries like the United States, Spain, Japan, Canada, and the Netherlands. In Singapore, to enhance resilience and citizens' access to food, urban gardens and urban farms have been constructed through municipal, government, and private partnerships. They have also made new regulations to use unused urban spaces for community and agricultural commercial purposes and to accept urban agriculture (Low, 2019).

The literature on urban agriculture emphasizes that one of the prerequisites for successful urban agriculture practices is the existence of policies, legal frameworks, and administrative processes established at central and local levels. Studies by Mukherji (2012), Prové et al. (2015), and Tixier and De Bon (2006) conclude that policies and legal and administrative processes established at central and local levels are among the most important prerequisites for successful urban agriculture practices. They note that urban agriculture activities are a product of a governance process and depend on resources (such as information, funds, land access, tools, seeds) owned or managed by external stakeholders like policymakers and urban planners (Di Fiore et al. 2021). The inclusion of stakeholders in

the governance process of urban agriculture significantly affects its success and sustainability. Activities carried out without a legal basis may be eradicated by local governments or public authorities and may also lead to insecure production due to issues such as theft (Bryld, 2003). Therefore, the perspectives and decisions of policymakers and practitioners on urban agriculture impact all stakeholders involved.

When looking at countries where urban agriculture has developed, it is seen that urban agriculture is institutionalized, legal regulations have been made, and programs are conducted in collaboration with central and local governments and civil society organizations. These programs include regulations regarding the purpose, scale, type of activity, by whom, in which areas of the city, and with what legal tools the agricultural activities will be carried out. Local governments identify suitable lands for agriculture, include the concept of urban agriculture in land use plans and policies, and establish regulatory frameworks for agricultural activities in urban areas, such as municipal parks and farms. Concepts such as hobby gardens, community gardens, and urban farms are developed within this scope. In addition to including urban agriculture in land use plans, municipalities also take on responsibilities in production-related regulations and implementations, ensuring cooperation between producers and collaborators, implementing these activities, and addressing the financial aspects (Taylor and Taylor, 2012; Güngör, 2024).

4. THE PLACE OF URBAN AGRICULTURE PRACTICES IN URBAN POLICIES IN TURKEY

When we look at the urbanization process of the country, it is seen that agricultural lands have been ignored in the production of urban areas. It is also observed that agricultural lands within urban areas cannot be preserved and sustainable agricultural production in urban areas is not ensured. This result can actually be attributed to the legal regulations that take measures to prevent agricultural activities in cities. Article 246 of the still-in-force Public Hygiene Law No. 1893 states, "In cities with a population of more than twenty thousand, it is prohibited to keep animal stables on public streets or in areas designated by municipalities," making the feasibility of agricultural activities in cities controversial. Today, this article of the law also raises the question of how agriculture can be practiced in metropolitan cities within the scope of Law No. 6360.

The overlapping of municipal boundaries with provincial boundaries (Law No. 6360) means that a significant part of the natural areas outside urban areas is managed with an urban management approach. Considering the urbanization experiences in our country so far, it is thought that this change in the management approach will accelerate the transformation of these areas into urban areas, bringing to mind the idea that urban development pressure on agricultural lands, like all natural areas, will increase. Until now, it has been observed that agricultural lands have been used for purposes other than their intended use, such as industry, housing, tourism, mining, and transportation (Yenigül and Alkan, 2020).

The inadequacy of existing urbanization policies and legislation to protect agricultural lands cannot prevent the misuse of agricultural lands. With new legal regulations, the authority and responsibilities of local governments have been expanded, and there is concern that municipalities, which focus on zoning activities, will encourage urbanization in rural areas within their jurisdiction. This concern also indicates that the issue of how rural and agricultural areas in metropolitan cities will be preserved and how municipalities should approach these areas needs to be discussed. The result is that more effective measures should be taken to protect agricultural lands in metropolitan cities, and the relevant actors should be municipalities.

The determination of rural and urban settlement boundaries with approaches based on legislation affects agricultural production, and changes in municipal boundaries with the Metropolitan and Comprehensive City Laws No. 5216 and 6360 have caused natural areas outside urban areas to fall within urban management areas. This also shows that more effective measures should be taken to protect agricultural lands in metropolitan cities and that central and local governments should cooperate.

Local governments play an important role in the applicability of urban policies. As in the world, the issue of regular and healthy nutrition of cities has started to become an important issue for local governments in Turkey as well. In recent periods, especially with the legal regulations that change the local government structure of the country and expand the authority of metropolitan cities, efforts have started to solve this issue.

When we look at the authorities and duties of municipalities and metropolitan municipalities defined by Laws No. 5393 and 5216, it is seen that they focus on making arrangements related to zoning. When examining the relevant laws, it is seen that the issue of agriculture is addressed in a single article (Law No. 5393: Article 69, Law No. 5216: Article 7, Law No. 6360: Article 14) and in these articles, there is no statement other than the protection of these areas while making arrangements related to zoning. In the latest legal regulation (Law No. 6360), however, there are no details on how local governments will take on tasks related to the protection, development, and agricultural production of agricultural areas within urban management areas. However, after the aforementioned law came into force, it has been observed that departments named 'rural services' or 'agricultural services' have been established in metropolitan municipalities regarding how they should approach rural areas included in their jurisdiction. When examining the regulations issued to define the duties and responsibilities of this additional unit established in the structure of metropolitan municipalities, it is seen that the duties and responsibilities of the relevant departments include 'planning, implementing, and coordinating all kinds of activities and services to support social life, agriculture, and animal husbandry in rural areas, fulfilling duties, authorities, and responsibilities related to all kinds of activities and services provided to support rural development.'

From this, it can be understood that agricultural activities are considered with a rural focus and seen as a component of rural development. This situation indicates that agricultural production is still continuing in rural areas and that agricultural production is not associated with urban areas. However, it can be accepted that an awareness of agricultural production has

been created within the scope of the duties, authorities, and responsibilities of municipalities with this institutional structure defined within the organization of metropolitan municipalities, and this can be seen as a positive development for agriculture and agricultural production. However, it is seen that municipalities in Turkey have not yet included urban agriculture practices aimed at the feasibility of agricultural activities in urban areas, which provide opportunities for food supply and security, employment security, and recreational activities. It is necessary for municipalities to take initiatives to start the process of making urban agriculture practices feasible in metropolitan cities. Municipalities should take the necessary steps towards institutionalization on the subject by making the necessary arrangements for the feasibility of agricultural production in urban areas and by cooperating with relevant institutions and organizations.

4.1. The Place of Urban Agriculture Practices in Urban Policies: An Evaluation on the City of Ankara

Ankara, with a population of approximately 5.8 million, is the second most populous city in the country. In the past, its economy, which was based on agriculture and livestock, shifted towards industry due to urbanization and population growth. The city's planned urbanization process began with the Jansen Plan (1928), inspired by the garden city movement. The Atatürk Forest Farm (AOÇ) Project, proposed alongside the plan, was designed as a recreational area with various social functions, aimed at enhancing agricultural production, developing agriculture and agro-based industries, conducting agricultural R&D activities, and providing education and employment opportunities. The AOÇ project reached its widest extent in 1937 with 52,000 hectares, but over time, the publicly-owned

land was allocated for various urban uses outside of its original purpose (Kimyon and Serter, 2015; Açıkgöz and Memlük, 2004). Recently, the need to reevaluate AOÇ within the scope of urban agricultural activities has been brought to the agenda.

Various initiatives related to urban agriculture can be observed in Ankara. Urban agriculture activities, promoted for purposes such as combating climate change, ensuring food security, and recreation, are emphasized in various policy documents. Policy documents related to urban agriculture presented by municipalities, especially the Ankara Metropolitan Municipality, can be summarized as follows:

i. *Ankara Master Plan (2023)*

With the enactment of Law No. 5216, the law mandated the preparation of a master plan for Ankara. The process, which expanded the municipal authority area by nearly four times, led to the inclusion of extensive natural areas, primarily agricultural lands, within the plan boundaries. In the 2023 Master Plan prepared by the Ankara Metropolitan Municipality in 2007, no direct provision related to urban agriculture was found. However, under the "social life" heading, modern agriculture was emphasized through AOÇ, highlighting its urban agricultural potential. The AOÇ's founding purpose, as stipulated by Law No. 5659 enacted in 1950, was to support farmers by establishing a model farm and ensuring public access to clean and affordable food. Additionally, it was planned to be an area that meets recreational needs through recreational, social, and cultural uses. This statement highlighted the existing urban agricultural potential of AOÇ, emphasized the need to preserve its agricultural presence, and underlined its structure that serves the purpose of modern agriculture research and development as well as recreation (Kayasü et al., 2020).

ii. *Ankara 2038 Environmental Plan*

In the Ankara 2038 Environmental Plan, prepared by the Ankara Metropolitan Municipality in 2017 but later annulled due to lawsuits, some strategies were proposed. In relation to urban agriculture, the plan highlighted the city's potential for organic and good agricultural practices. Strategies included increasing education and dissemination activities to promote organic and good agricultural practices and establishing certified seed systems to ensure food security (Ankara Metropolitan Municipality, 2017).

iii. *Ankara Strategic Plan (2020-2024)*

In the 2019 Ankara Strategic Plan (2020-2024), various urban-related issues were identified under the environmental heading. Issues such as inefficiency, lack of oxygen areas in the city, lack of priority for nature and society, climate and environment-sensitive rural development, environmental peace, disaster management, and construction-sensitive growth were discussed. Urban agriculture, urban gardening activities, production and seed support, encouraging the younger generation to engage with agriculture and soil, and supporting healthy and affordable food production were directly or indirectly emphasized as solutions to these issues (Ankara Metropolitan Municipality, 2019).

iv. *Ankara Local Climate Change Action Plan*

In the 2022 Ankara Local Climate Change Action Plan, prepared by the Ankara Metropolitan Municipality, it was stated that despite Ankara's leading position in terms of added value produced and agricultural land presence, the city's effectiveness in agricultural production was low. Evaluations indicated that the impacts of climate change would be felt as drought in

agricultural areas, and air and noise pollution would significantly affect the city. The city was identified as "highly vulnerable" to the effects of climate change.

The plan aimed to increase the capacity to combat and adapt to climate change and emphasized the importance of this issue at the provincial level. Strategies included creating open-green areas to reduce urban heat island effects, implementing green roof and vertical garden applications in densely built areas, and establishing orchards to enhance biodiversity (Ankara Metropolitan Municipality, 2022).

At the metropolitan municipality level, while there is no clear policy document specifically for urban agriculture, it is emphasized in environmental and climate-based policy documents. Additionally, Ankara became a part of the European Bank for Reconstruction and Development (EBRD) Green Cities Program in 2020. As part of this project, ABB announced that it would create a Green City Action Plan focusing on topics such as water, energy, waste, infrastructure, transportation, green spaces, and buildings to ensure the quality and sustainability of the local environment against the potential impacts of climate change (Güngör, 2024).

v. *Ankara 2024-2028 Regional Plan Draft*

The Ankara Development Agency prepared a draft of the 2024-2028 Regional Plan, which includes five strategic priorities, 16 goals, and 70 action measures. The plan aims to create a city model that is self-sufficient and can manage its resources within the framework of public space quality, spatial continuity, accessibility, and urban resilience. Measures include creating awareness and policies on water, food security, and climate change, and fostering collaboration between institutions, companies, and universities conducting research on these topics.

Urban agriculture is emphasized as part of encouraging urban residents to participate in urban food chains (Güngör, 2024).

vi. *Urban Agriculture and Rural Life Enhancement Project*

In 2020, the Ankara Metropolitan Municipality, in collaboration with the Food and Agriculture Organization (FAO) and the Nature Conservation Center, initiated the Urban Agriculture and Rural Life Enhancement Project. This project aimed to increase market share and added value by branding five products in five districts. However, it was noted that the activities carried out under this project were more rural-focused, with no mention of urban agriculture activities (Güngör, 2024).

vii. *Urban Agriculture Strategy Document*

The Ankara Development Agency has undertaken some studies on urban agriculture. The document "Ankara and Agriculture," prepared in 2016, emphasized the need to promote urban agriculture activities (Ankara Development Agency, 2016). In 2020, the Agency prepared the "Urban Agriculture Strategy Document," focusing on the potential for urban agriculture in Ankara, specifically in the Çankaya District. The preparation process included stakeholder participation, focus group meetings, expert visits, training programs, and field visits. A SWOT analysis was conducted to understand the potential of urban agriculture, and evaluations were made through the Çankaya District. The document outlined opportunities and strengths identified for the district, highlighted the obstacles to urban agriculture activities, and provided solutions to overcome these obstacles (Kayasü et al., 2020).

The Çankaya Municipality is one of the district municipalities in Ankara that conducts effective work on urban agriculture activities. Of the 124 neighborhoods affiliated with

the Çankaya Municipality, 99 are centrally located, with a high density of construction. The municipality joined the Healthy Cities Project coordinated by the World Health Organization European Regional Office in 2004. Within this project, the municipality implemented social municipal activities, including the Mutlukent Neighborhood Garden and the City and Agriculture Hobby House Project. The Mutlukent Neighborhood Garden aimed to engage city dwellers in production activities in a garden area created with the municipal budget, where municipal officials provided training, seminars, and talks on agricultural production. The project also aimed to encourage the public towards organic production through certification and inspection mechanisms for organic products. The City and Agriculture Hobby House initiative aimed to provide citizens with theoretical and practical training on product cultivation. No chemicals were used in the products grown in the garden, and gardening and cultivation training was provided (Çankaya Municipality, 2019a).

The Çankaya Municipality supported and encouraged urban agriculture activities through various documents. The Çankaya Municipality Strategic Plan 2020-2024 aimed to "create a clean Çankaya that is respectful to all living beings, with a high quality of life, producing permanent solutions to social, economic, and environmental problems," focusing on organic farming and facilitating access to organic products. Strategies included gardening and agricultural training, inspection activities, and other related work. A significant portion of the budget was allocated for these training sessions. Urban agriculture activities were defined under the planned urbanization and spatial development activities heading, and stakeholders were identified. Another scope related to urban agriculture was presented through Pestle analysis, highlighting

the necessity of developing urban agriculture and the opportunities it offers to consumers. The plan emphasized the adequacy of areas within the municipal boundaries for urban agriculture and focused on the urban agriculture potential (Çankaya Municipality, 2019b).

viii. *Capital Ankara Development Project (BAKAP)*

The Ankara Metropolitan Municipality initiated the Gölbaşı Agricultural Campus, BAKAP, in 2019 by conducting land use planning and began production activities in 2020. The campus encompasses research, development, technology, education, and agro-tourism components. The Agricultural Campus, established on 3500 decares of land owned by the Ankara Metropolitan Municipality, distributes agricultural products grown on the campus to local producers and small family businesses for free. As the country's largest agricultural campus, it also aims to create a social living space by connecting city residents with nature and natural products. The project aimed to bring contemporary, distinctive, and high-quality public mixed-use areas to Ankara. By developing the cultural, social, and economic values of natural resources, it aimed to create added value for the local people. The campus was designed as an agricultural-themed living space with eco-friendly approaches to ensure clean food access for the people of Ankara and provide recreational opportunities while supporting farmers and producers (Ankara Metropolitan Municipality, 2020)

5. CONCLUSION

Food crises are increasing in cities made vulnerable by disasters. While global discussions on the topic continue,

emphasizing the need for local solutions, the 2000s brought public administration reforms that enhanced the roles and responsibilities of local governments through inter-institutional cooperation. In metropolises that combine urban and rural textures, this process has also necessitated regulations that support agricultural production through urban-rural collaboration. During this process, cooperation between relevant institutions and organizations and central and local governments requires the institutionalization of cooperatives, non-governmental organizations, and labor and employer organizations in the supply and marketing chain from production to consumption.

Current practices indicate that urban agriculture activities are still at an early stage. The topic has begun to find a place in urban planning processes, especially in spatial planning issues, but the mechanisms for organizing this process have yet to be developed and need to be established. Existing legislation falls short of emphasizing the importance and opportunities of agricultural activities in urban areas, failing to integrate agriculture with the city. Examples of urban agriculture practices that have been implemented with the support of local governments in response to grassroots demand need to be diversified and supported within an institutional structure. It is essential to inform different segments of society about the benefits and feasibility of urban agriculture and to support them in project development and implementation phases.

6. REFERENCES

Açıkgöz, S. ve Memlük, Y. (2004). Kentsel tarım kapsamında Atatürk Orman Çiftliği'nin yeniden değerlendirilmesi [Revalution of Atatürk Orman Çiftliği respect to urban agriculture]. *Journal of Agricultural Sciences*, 10(1), 76-84.

Akyol, M. ve Tunçay Eşbah, H. (2013). Productive landscapes and resilient cities", *ITU* A|Z, 10(2), 133-147.

Ankara Büyükşehir Belediyesi, (2017). *2038 Ankara Çevre Düzeni Planı* (İptal) [2038 Ankara Environmental Plan]. ABB, Ankara.

Ankara Büyükşehir Belediyesi, (2019). *Ankara 2020-2024 Stratejik Planı* [Ankara Strategic Plan 200-2024]. URL: https://www.ankara.bel.tr/dokumanlar/saydamlik-ve-hesapverilebilirlik/stratejik-yo¬netim-araclari/stratejik-planlar. Last Access Date: 10 October 2023.

Ankara Büyükşehir Belediyesi, (2020). *Başkent Ankara Kalkınma Projesi* [Capital city Ankara Development Project]. URL: https://bakap.ankara.bel.tr/. Last Access Date: 10 July 2024.

Ankara Büyükşehir Belediyesi, (2022). *Ankara İli Yerel İklim Değişikliği Planı* [Ankara Province Local Climate Change Plan]. URL: https://www.ankara.bel.tr/files/2022/06/22/0b663954d523bfee1d1e1d5fa66a082f.pdf. Last Access Date:10 October 2023.

Ankara Kalkınma Ajansı (2016). Ankara ve Tarım [Ankara and Agriculture]. https://www.kalkinmakutuphanesi.gov.tr/assets/upload/dosyalar/ankara-ve-tarim-2016.pdf. Last Access Date:21.9.2023.

Bouteska, A., Sharif, T., Bhuiyan, F. and Abedin, M.Z. (2024). Impacts of the changing climate on agricultural productivity and food security: Evidence from Ethiopia. *Journal of Cleaner Production* 449, https://doi.org/10.1016/j.jclepro.2024.141793.

Bryld, E. (2003). Potentials, problems, and policy implications for urban agriculture in developing countries. *Agriculture and human values*, 20(1), 79-86.

Çankaya Belediyesi, (2019a). *Çankaya Belediyesi sağlıklı kent projeleri 2014-2019* [Çankaya Municipality Healthy City Projects]. URL: https://www.skb.gov.tr/wp-content/uploads/2019/03/Cankaya-Saglikli Kent Projeleri-2014-2019.pdf. Last Access Date:10 October 2023.

Çankaya Belediyesi, (2019b). *Çankaya Belediyesi 2020-2024 Stratejik Planı* [Çankaya Municipality Strategic Plan 2020-2024]. URL: http://www.sp.gov.tr/upload/xSPStratejikPlan/files/gnJCq+cankaya.pdf. Last Access Date:10 October 2023.

Di Fiore, G., Specht, K. and Zanasi, C. (2021). Assessing motivations and perceptions of stakeholders in urban agriculture: a review and analytical framework. *International Journal of Urban Sustainable Development*, 13(2), 351-367.

Ernwein, M. (2014). Framing urban gardening and agriculture: On space, scale and the public. *Geoforum*, 56, 77-86.

FAO, Food and Agriculture Organization of United Nations, (2007). A Primer to the Right to Adequate Food, The Concept of the Right to Adequate Food, 2007. Food and Agriculture Organization of the United Nation FAO. URL: http://www.fao.org/family-farming/ detail/en/c/1052951. Last Access Date:10 July 2024.

FAO, Food and Agriculture Organization of United Nations, (2020). Cities and local governments at the forefront in building inclusive and resilient food systems, 2020. URL: http://www.fao.org/3/cb0407en/CB0407EN.pdf. Last Access Date:10 July 2024.

Gatarić, D., Belij, M., Đerčan, B. ve Filipović, D. (2019). The origin and development of Garden cities: An overview. Zbornik radova-Geografski fakultet Univerzitet u Beogradu, 67(1), 33-43.

Güngör, Ö. (2024). İklim Değişikliğine Uyum İçin Doğa Temelli Çözümler Kentsel Tarım Uygulamaları, Yayınlanmamış Yüksek Lisans Tezi [Nature Based Solutions For Adaptation To Climate Change Urban Agriculture Practices, Non-published M. Sc. Thesis]. Gazi Üniversitesi Fen Bilimleri Enstitüsü.

Indraprahasta, G.S. (2013). The Potential of Urban Agriculture Development in Jakarta. Procedia Environmental Sciences, 17, 11 – 19.

ILO, International Labor Organization, (2013). Labour Issues in Urban and Peri-Urban Agriculture: Information and Resource Guide URL: https://www.ilo.org/wcmsp5/groups/public/dgreports/integration/documents/instructionalmaterial/wcms_568945.pdf. Last Access Date:10 July 2024.

Kapan, K. ve Öztoprak, Ş. (2020). Dünya ve Türkiye'den Örneklerle Kentsel Tarım. Sosyal, Beşerî ve İdarî Bilimler Alanında Güncel Araştırmalar (Cilt 1) [Urban Agriculture with Examples from the World and Turkey. Current Research in Social, Human and Administrative Sciences (Volume 1)]. (Ed.) Adem Kara ve Sinan Sönmez, Ankara: Duvar Yayınları, ss. 57-81.

Kayasü, S., Büyükcivelek, A. B., Durmaz, B., Karadoğan, S. ve Akça, P. (2020). Kentsel tarım stratejisi belgesi Çankaya İlçesi uygulama örneği [Urban agriculture strategy document Çankaya Municipality application example]. Ankara Kalkınma Ajansı, 15, 2022.

Kimyon, D. ve Serter, G. (2015). Atatürk Orman Çiftliği'nin ve Ankara'nın değişimi dönüşümü [Fluctuating transformations in the Atatürk Forest Farm and Ankara]. Planlama, 25(1), 44-63.

Low, B. (2019). Building sustainable urban farms with government support in Singapore. Field Actions Science Reports The Journal of Field Actions, Special Issues 20. http://journals.openedition.org/factsreports/5824

Mukherji, N. (2012). The Promise and Pitfalls of Municipal Policy for Urban Agriculture. Master of Science. University of Wisconsin Madison. ABD. 130.

Prost, S., Crivellaro, C., Haddon, A., Comber, R. (2018). Food Democracy in the Making: Designing with Local Food Networks. CHI Conference on Human Factors in Computing Systems, April 21–26, 2018, Montréal, QC, Canada.

Prové, C., Kemper, D., Loudiyi, S., Mumenthaler, C. and Nikolaidou, S. (2015). Governance of urban agriculture initiatives: insights drawn from European case studies. Urban Agriculture Europe, 64-69.

Pulighe, G. and Lupia, F. (2020). Food First: COVID-19 Outbreak and Cities Lockdown a Booster for a Wider Vision on Urban Agriculture" Sustainability 2020, 12, 5012.

Renard, N. (2019). Urban Agriculture: Another Way to Feed Cities. Journal of Field Actions, Special Issue Vol.20.

Renting, H., Schermer, M., Rossi, A. (2012). Building Food Democracy: Exploring Civic Food Networks and Newly Emerging Forms of Food Citizenship. International Journal of Sociology of Agriculture and Food, Vol: 19, No.3, 289–307.

Rural Urban Agriculture and Food (RUAF), (2022). Urban Agriculture and City Region Food Systems: What and Why?. https://ruaf.org/urban-agriculture-and-city-region-food-systems. Last Access Date: 14 July 2024.

Schmidt S, Magigi W., Godfrey B. (2015). The organization of urban agriculture: Farmer associations and urbanization in Tanzania. Cities, 42, 153–159.

Swinnen J., McDermott J. (2020). COVID-19 and global food security. Washington: International Food Policy Research Institute.

Taylor, J. R., Lovell Taylor, S. (2012). Mapping Public and Private Spaces of Urban Agriculture in Chicago Through The Analysis of High-Resolution Aerial Images in Google Earth.Landscape and Urban Planning, 108, 57-70

T.C. Çalışma ve Sosyal Güvenlik Bakanlığı, (2014). Ulusal İstihdam Stratejisi (2014-2023) [National Employment Strategy (2014-2023)]. URL: https://ailevecalisma.gov.tr/media/56914/uis-2014-2023.pdf. Last Access Date: 20 Sepetember 2022.

T.C. Kalkınma Bakanlığı (2014). 10. Kalkınma Planı (2014-2018) İstihdam ve Çalışma Hayatı Özel İhtisas Komisyon Raporu [10th Development Plan (2014-2018) Employment and Working Life Special Expertise Commission Report]. URL: https://www.sbb.gov.tr/wp-content/uploads/2018/10/10_IstihdamveCalismaHayati.pdf. Last Access Date: 20 Sepetember 2022.

T.C. Tarım ve Orman Bakanlığı (2020). 15 Nisan– 15 Mayıs 2020 Haber Bülteni [15 April– 15 May 2020 Newsletter]. URL: https://www.tarimorman.gov.tr/ABDGM/Belgeler/Haber%20B%C3%BClteni/Ayl%C4%B1k%20B%C3%BClten%20ABDGM_15.04-15.05.2020.pdf. Last Access Date: 20 Sepetember 2022.

Tixier, P. and De Bon, H. (2006). Urban horticulture. In R.Veenhuizen, (Ed.). Cities farming for the future Urban Agriculture for green and productive cities. Canada:IDRC. pp:316-347.

UN, United Nation, (2017). The New Urban Agenda. URL: https://habitat3.org/the-new-urban-agenda. Last Access Date: 20 Sepetember 2022.

Wilkins, J., (2005). Eating right here: Moving from consumer to food citizen. Agriculture and Human Values, 22, 269-273.

Wright, F. L. (1935). Broadacre City: A New Community Plan. New York: Architectural Record Publishing Company.

Yenigül S. B. (2016). Büyükşehirlerde Tarımsal Alanların Korunmasında Kentsel Tarım ve Yerel Yönetimlerin Rolü [The Role of Urban Agriculture and Local Authorities in Protecting Agricultural Land in Metropolitan Cities]. Megaron, 11. 291-300.

Yenigül S. B.ve Alkan Gökler, L., (2020). Belediyeler için hizmet rehberleri serisi tarım arazilerinin korunması rehberi [Service guides series for municipalities guide to the protection of agricultural lands]. İdealKent Yayınları: Ankara

Yenigül S. B., Camkurt M. Z. (2019). Kırdan Kente Tarımsal İstihdamın Yeniden Örgütlenmesi [Reorganization of Agricultural Employment from Rural to Urban]. 4. Uluslararası Kent Araştırmaları Kongresi, 16 - 18 Ekim 2019, Ankara.

Zezza, A, Tasciotti, L. (2010). Urban agriculture, poverty, and food security: Empirical evidence from a sample of developing countries. Food Policy, 35, 265-273.a

THE ROLE OF FORMATIVE ACTION AND URBAN DESIGN: SHAPING THE TRANSFORMATION OF URBAN SPACE

Halime GÖZLÜKAYA[1]

1. INTRODUCTION

The world is changing rapidly. Since transitioning to settled life, humans have continuously interacted with space due to their vital activities. Humanity has intervened with space throughout different periods as the primary actor in actions such as forming, transforming, and altering space. The most significant places where this intervention occurs are undoubtedly cities. Cities are locations where many people with diverse social structures, cultures, and economic activities coexist.

In developing countries, cities have been unable to adapt to the accelerating changes brought about by the Industrial Revolution and the globalizing economic, social, and technological developments that followed the 1980s. Along with this transformation, a process emerged, marked by population growth, leading to changes specific to cities, an increase in the number of cities, and the expansion of urban areas. This process, referred to as urbanization, has brought numerous challenges. The urban issues arising from urbanization have begun to make their full impact, manifesting their adverse effects on urban spaces.

[1] Arş. Gör., Süleyman Demirel Üniversitesi, Mimarlık Fakültesi, Şehir ve Bölge Planlama Bölümü, halimegozlukaya@sdu.edu.tr, ORCID: 0000-0002-2138-8628.

By directing the spatial development of cities, the existing systems that shape the urban environment have proven insufficient in addressing emerging problems, and the proposed solutions have given rise to new issues. This situation has highlighted the need for new approaches and regulatory tools within the current systems. At this point, there is a need for urban design, which serves as a tool to restore the lost sense of community in cities, bridge the gap between urban architecture and planning decisions, and guide the multidisciplinary urban development process.

Considering urban design as a tool in urban space development solely as a control/monitoring system may lead to standardizing the living environment. In contrast, the pragmatic approach followed in the processes of urban design and the transformation of urban space should be assessed with an actively participatory/negotiated mindset and with an innovative perspective that considers the changes brought about by globalization.

In addition to general factors such as transportation systems, topography, social structure, population size, and spatial expansion, the actions and behavioral patterns of the people who consume the space impact the shaping of urban form. In this context, creating a process that considers the city and its inhabitants' behavioral movements would be essential to forming more unique and distinct urban spaces.

The concepts of Urban Space, Urban Form, the Shaping of Urban Space, the Act of Shaping, the Transformation of Urban Space, and Urban Design, examined in this study, form the foundation of the research. In the study titled "The Role of Formal Action and Urban Design: Shaping the Transformation of Urban Space, " the interaction of relational structures is the

most significant aspect of the process through which spaces come together to form meaningful wholes. This situation can be explained by the shaping characteristics of urban spaces and control processes that ensure their continuity.

1.1. Aim

Cities are integrated wholes of networks formed within macro systems formed by building elements and the relationships between socio-economic and spatial values. Over time, they develop under the influence of spatial, social, economic, and cultural factors. The reflection of these factors on space and the form of urban space leads to spatial differentiations and transformations/changes within the urban integrity.

In this context, the shaping of urban space and the relationship system formed by the actors and processes involved can be evaluated from different perspectives. Urban design criteria and regulations can control it, and it serves as a transition platform between disciplines.

In the broadest sense, this study aims to discuss, through conceptual explanations, the development of human behaviors, urban form systems, and environmental factors in the transformation of urban space by evaluating the act of shaping through a control mechanism such as urban design.

1.2. Scope

In its broadest definition, urban space can be considered as a mass of buildings physically connected with infrastructure and spaces (cities). Functionally, it serves as a platform shaped by economic, social, cultural, and environmental processes. In this context, it becomes possible to establish a relationship between "Meaning" and "Outcome." In shaping urban space,

"Meaning" can represent the physical city, while "Outcome" can represent the functional city.

This study will examine the role of shaping in transforming urban spaces, focusing on its effectiveness in creating meaningful (legible), livable, and memorable places. The concepts of urban space, urban design, and urban form will be explained, and the role of shaping in transforming urban space will be discussed in a comparative manner, considering multiple perspectives with differing views.

1.3. Method

In the study, secondary sources were used to provide a descriptive account of the factors influencing the shaping process of urban space transformation. The concepts of urban space, urban transformation, urban form, the Act of Shaping, and urban design have been conceptually explained and examined in the context of the topic. Since the study encompasses conceptual research processes, it does not involve empirical analysis. Instead, the approach involves supporting the conceptual framework by reviewing relevant sources.

2. RESEARCH FINDINGS AND DISCUSSION

2.1. Urban Space, Urban Form and Urban Design

This section will focus on urban space and the transformation of urban form, which changes with the city's formal structure and dynamics. The study will provide a conceptual explanation of the values associated with the transformation of urban space, the general characteristics of urban form, and the practice of urban design.

2.1.1. Urban Space

Space defines and limits human life, and it directly interacts with form. Therefore, clarifying the concepts of "space" and "urban space" will facilitate the identification of the fundamental starting points and processes involved in shaping urban space patterns.

Urban space, in its core meaning, refers to the areas within the city that are defined by buildings but lie outside of them. Generally, urban space can be defined as all the spaces located between structures in settlement areas. These spaces are geometrically bounded by different facades and are named according to their scale (Figure 2.1). Urban spaces are equipped with components of various sizes and characteristics (Kılıçarslan, 1996). These components, which can be point-based, linear, planar, and three-dimensional, contribute to the legibility of urban space when analyzed through concepts such as balance, texture, repetition, rhythm, dominance, continuity, and gradation created by these components.

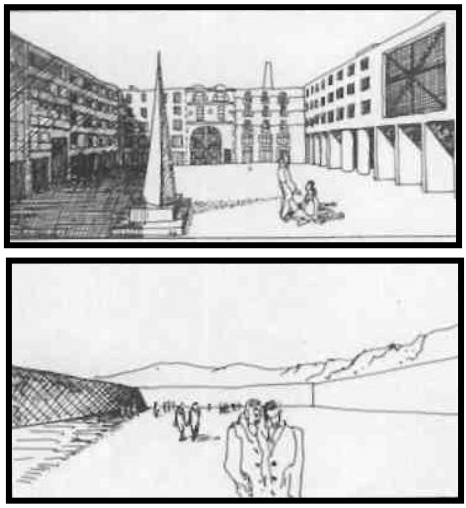


Figure 2.1. Different Scales of Urban Spaces (Krier, 1990)

Any outdoor space can be perceived as urban to the extent that its formal and aesthetic qualities are legible (Krier, 1990). Urban space is a perceptual realm created by the natural and built environment. People spend a significant portion of their daily lives in urban spaces, often unaware of it. The spaces we live in influence our way of life and human behaviors. The impact of cities on social life is of utmost importance. Streets, squares, parks, and open spaces are areas where urban residents gather, encounter one another, socialize, express themselves individually or collectively, and create urban culture, offering freedom and spaces for social-behavioral reconciliation. Urban spaces and the meanings attributed to these spaces are among the most important elements of communication between society and individuals (Salingaros, 2005).

Buildings are among the most important components that give streets their identity. While streets and squares provide access to buildings, buildings shape these spaces through their heights, facade ratios, mass movements, roof forms, materials, and details. In the definition of urban space, the existence and importance of voids, as much as solids, cannot be denied. In this sense, courtyards and gardens are considered components of urban space (El-Khoury & Robbins, 2006).

Space is a three-dimensional expression of the distances, relationships, and intervals between humans, between humans and objects, and between objects themselves. In architecture, form emerges at the intersection of mass and void. When creating an architectural form, it is necessary to be aware of the mass and the void it encloses and the surrounding primary spatial void in which the form exists. In this context, the relationship of a building with its exterior space is not a secondary feature but rather a complement to its development and existence.

When designing cities and buildings, they must form a whole with empty and open spaces. Zevi (1957) pointed out that urban space exists wherever human-made "voids are limited" in enclosed and open spaces, cities, streets, squares, avenues, parks, and gardens. All the spaces between city buildings are considered external or urban social spaces. Urban spaces are defined functionally and structurally, often marked by the shared social characteristics of individuals, groups, or organizations and by various physical, social, and symbolic attributes that define their boundaries (Zevi, 1957).

When examining the relationship between solid and void in urban spaces, the hierarchy between urban spaces draws our attention. All social segments occupy a place within this spatial hierarchy, independent of their class positions. This spatial hierarchy distinguishes public, semi-public, and private spaces within streets. Rapoport (1981) emphasizes the key factors of meaning, communication, and time in defining the urban environment. He also highlights the necessity of shaping space in accordance with the rules reflecting the activities, values, and goals of the group or individual organizing it, regardless of its scale and for different purposes (Rapoport, 1981).

The impact of cities on human social life is significant. As Wirth pointed out, a city is not merely a place where the number of homes and workplaces increases but rather a place that brings together and transforms different areas, people, and activities, like a network or a circle, and serves as the center from which economic, political, and cultural life begins and is controlled (Wirth, 1964). These characteristics are only completed through the life experiences within the city and gain meaning as they are shaped. In a similar approach, Lefebvre envisioned the city as a container that maximizes the transmission of meanings related to human interaction and

civilization from generation to generation. "The city liberates people, enabling them to make decisions and determine new directions" (Lefebvre, 1991).

Lefebvre discusses three different forms of space. According to Lefebvre, the social city experiences three important domains: "spatial practice," "representations of space," and "representational space" (Lefebvre, 1991). In other words, these can also be defined as three domains related to using, conceptually proposing, and experiencing space perceptually. The city is a social construct, and all "spatial practices" related to producing the city, the "representations of space," and "representational spaces," in Lefebvre's own words, require simultaneous attention to conceptual proposals and perceptual experiences of space. Spatial practice encompasses production, reproduction, and the specific spatial formations of every social structure. Spatial practice must be in perfect harmony, but this does not imply an intellectual sense of work or rational thinking. The representation of space, or conceptual space, defines what is lived, thought, and perceived. On the other hand, representational space is directly connected with lived images and symbols (Lefebvre, 1991).

Urban space is designed, planned, and implemented through long and intensive studies by experts and is made available for use by the city's inhabitants. However, the actual production of urban space begins precisely when it encounters the city dweller. Urban space finds meaning through the experiences it contains or gains different meanings, being constantly redefined and produced through the various functions attributed to it by the city's inhabitants. In this context, it is not very meaningful to think about and attempt to conceptualize urban space independently of the city dweller.

2.1.2. Urban Form (Shape)

In his evaluation of urban form, Lynch (1954) identified the fundamental elements as functions (residential, industrial, green space systems, social infrastructure site selections, etc.), density, macroform, and the relationships between these factors. Within this definition, five key elements emerge when evaluating the form of cities. These are:

- Urban form (macroform)
- Function/functional areas
- Transportation system
- Settlement size and density distribution components.

Table 2.1. Effects of Events and Phenomena on Urban Space and the Development of Urban Form (ibid.)

Movement	Time Period	Main Machine and Industries	Key Raw Materials	Priority Needs and New Solutions	Activities and New Urban Forms	Urban Form
1	1770-80/1830-40 Industrial Revolution	Era of Early Mechanization, Iron, Water Power	Cotton & Iron	* Local Systems' Scale Limitation * Possible to be more mechanised	Capital-based local industries and small firms	Pedestrian-oriented city (Early Industrial Density - Extreme and Dense)
2	1830-40/1880-90 Victorian Age Great Depression	Age of Steam Power and Railways	Coal	* Settlement dependent on rail strength * New transportation systems offer more diverse settlement options.	Thousands laid off firms	Transit City and Railway-Borne Suburbs
3	1890-90/1930-40 Beautiful Age Great Depression	Electric and Heavy Engineering Machine Production, Electricity Generation and Distribution	Steel	* A stable supply provided by a steam machine * The use of electricity becomes a common outcome	* Large firms, natural monopolies take over government * Financial capital accumulates	Infrastructure for cars Street Suburbs
4	1930-40/1980-90 Growth Fordist Manufacturing Age Keynesian intervention Structural Adjustment Crisis	Petrol-based Energy	* Mass production assembly of new production activities *Automobiles and air transport flexibility and speed	Partisan-oriented parties and extra structural efforts accumulate competition	* Automotive City. * Emergent urban centers led by fragmentation, construction spills (Use increase, single social use proved)	
5	Late 20th Century Global Economic Stagnation	Information Technologies Communication and Control systems * Fiber Optics * New Banks * Satellites	Chips (Microelectronics)	* Energy Material Contracted and Factory		

The initial formation of cities was observed in coastal areas such as rivers, lakes, etc. Initially, urban form had a smaller and more internal structure. However, several systems were formed over time by shaping urban form through transportation, trade, population growth, and spatial distribution. In this historical process, Strauss and colleagues discuss the changes in urban space and the shaping of urban form in relation to events and phenomena, highlighting the impact of changes in transportation systems as one of the most significant factors influencing urban form. They also note that the intensification of city centers with new functions and residential areas experiencing movement and new formations contributes to urban form (Table 2.1). As seen in Table 1.1, the flows that developed over time and the disruptions in the urban form change have become significant alongside spatial developments and economic and technological advancements (Strauss et al., 1998).

In defining the concepts of urban structure and urban form, Çalışkan (2004) emphasizes the importance of the physical spatial elements that constitute this structure in defining it. He states: "In physical planning theories focusing on the city's form and appearance, the concepts of 'urban form' and 'urban structure' introduce two important distinctions. Accordingly, urban structure refers to the structural elements of the city (road network, urban infrastructure, etc.) and the whole it creates. In contrast, urban form addresses the built-up areas attached to the skeleton (structure)" (Çalışkan, 2004). In Amal's (1997) study "An Investigation of the Relationship Between Transportation Demand and Urban Spatial Structure in the Toronto (Canada) Metropolitan Area," three key terms are mentioned to express urban structure. These are:

- Urban form

- Urban interactivity
- Urban spatial structure.

In the same study, Amal (1997) defines urban form, function, and spatial structure as follows: "Urban form is the spatial pattern or arrangement of individual elements, such as buildings and uses, within the urban area, as well as the collective social coming together of public institutions and economic activities. Alternatively, form refers to the physical pattern of land-use actions, population distribution, and their connections. Urban interaction is a cluster of flows, connections, and interrelations that affect the integration of actions, groups, and the behavior and patterns of individual land use within active existences."

However, these concepts are inherently limited and fixed due to their characteristics. As described by Bourne (1982), spatial structure is the intersection of behavior and patterns of interaction with a set of regulatory rules that connect subsystems within an urban system. In his 1974 study, Berry defined urban form by assessing it in terms of complexities at different levels ([Berry, 1974], cited in Çalışkan 2004):

- At the small scale, in terms of the detailed locations of workplaces, residences, commercial areas, recreational spaces, and vacant, non-urban areas;
- In a broader sense, by evaluating the type and network structure of the transportation system and its spatial dimension, the temporal dimension of its use, the separation of functions, and the intensity of elements and activities;
- At its most general level, in terms of spatial organization, it is dispersed to concentrated, from

single-core to multi-core, and forms that are either pre-defined or adaptable to development.

Bourne (1982) provided a comprehensive description of the urban spatial structure by comparing urban form (shape and internal organization), interrelationships (organization), and the nature and development of activities (land use in the city, the built environment, systems of socio-economic activities, and political institutions). These characteristics can be categorized into four groups: Context, Macroform, Inner Form, and Function/Organization.

Bourne (1982) based his view on social and professional composition, travel patterns, workplace locations, and land value ratios, which may vary across cities due to different economic systems and production foundations. For example, a mining settlement behaves and appears differently from office centers or university towns. Mining towns can be significant employment centers located at the head of a mining area and may be separated from the city's business district. In such cases, travel to work tends to be farther from the central business area. On the other hand, in office-centered cities, employment tends to be concentrated in the city center. As a result, travel patterns to work are more focused around the core.

Today, technological advancements in the methods used to derive and compile empirical findings from theories about urban form and structure in geography, sociology, economics, and urban planning (such as Geographic Information Systems) have made it easier and more flexible to study the increasingly complex functional relationships within cities and their resulting urban structures.

The differences in the topography, histories, regional economic relationships, geographical locations, and function

distributions of cities show that their forms and urban structures may also differ ([Russwurm, 1980], cited in Maoh et al., 2007).

2.1.3. Urban Design

Planning, which aims to make cities livable and ensure that they contribute positively to human life in an imaginary sense, plays a significant role in the formation of urban identity.

Planning and design should be evaluated in two dimensions in city development. The first dimension is the efforts' active role in shaping urban spaces. The second dimension, however, is their impact on transforming and changing society, influencing the formation of cultural and social identity in the long term (Uçkaç, 2006).

Firstly, urban design is the most important transition platform that has emerged among different disciplines. It is where the interaction and harmony between scales are designed when transitioning from urban planning to architectural and landscape values. Urban design is generally the process used to shape, use, and organize the urban environment (Aydıngün, 2000).

Urban design is "... the action of designing the different groups of buildings with various uses, pedestrian movements, services, spaces, and objects between them, in a city whose social, political, economic, managerial, and physical structure is constantly changing. It is a creative action that ensures the reorganization and alteration of the urban environment's form and character in response to these changes. In this context, the ability to establish activity systems and interpret local features in design is of great importance. Urban design is the physical design of public spaces" ([Karaman, 2000], cited in Uçkaç, 2006).

Urban design can also be defined as addressing the economic, social, political, religious, and recreational needs of cities and creating high-quality, livable settlements. It can be examined in two dimensions as both a product and a process. In the first approach, urban design can be evaluated as products developed by theorists. In the second approach, urban design is considered a process where the factors in practice should be designed and reflected in the space (Larice & Macdonald, 2007).

Lynch's (1979) definitions, the concept of urban design is referred to as "city design." He explains city design as the particular examination of the effects of urban spaces on users' daily lives and the search for improving users' daily experiences and personal development ([Lynch, 1979], cited in Uçkaç, 2006). Lynch defines urban design, in other words, as the ability to create proposals for spatial spread, management, and form of the existing environment, and lists the values required for the realization of urban design as follows:

- Livability,
- Appropriateness to function,
- Ease of readability and learnability,
- Satisfaction provided,
- Being meaningful through associative perception,
- Balance of private and public spaces under control,
- Feasibility.

Perception, the balance of private and public spaces, and feasibility are common issues related to urban design, architecture, and planning ([Lynch, 1979]; Tekeli, 1994).

Çubuk (1992), from a different perspective, defines urban design as a discipline that makes necessary analyses for the change and development of contemporary urban life social service systems, produces projects, ensures the public order of investments, and establishes a balance between past and future values that need to be preserved.

In line with all these definitions, urban design is organizing urban spaces to create livable cities that meet the socio-cultural, economic, and physical needs of city dwellers, resulting in higher quality of life.

Urban design not only organizes the physical arrangements of the environment it addresses but also examines and seeks solutions for its ecological, economic, social, and political aspects. It needs to consider the area in relation to its surroundings. In this way, it is responsible for both the designed area and its integration with the surroundings and its impact on the surrounding environment in the context of ensuring urban continuity.

To understand and comprehend the concept of urban design, it is necessary to refer to the model established by M. Carmona. The subcontexts of the model are as follows:

- Morphological
- Spatial
- Contextual
- Visual
- Perceptual
- Social
- Functional
- Sustainable

According to Tekeli (1994), the policies to be implemented for creating livable cities in urban design projects are as follows:

- Residents should have easy access to natural areas.
- Social life should be revitalized.
- Public participation in urban events should be ensured.
- Environmental perception and human relations should be strengthened.
- Alternative transportation systems should be developed to reduce heavy vehicular traffic.
- Urban identity expression should be strengthened.
- Access to urban events and public spaces should be provided for all groups in society.

Urban design guidelines can be considered spatial control tools. They are used to determine policies related to the urban built environment. Based on the general characteristics of urban spaces and the ideas of participants, some design tools and objectives are established, through which design control is exercised (Tezer, 2002).

The most important design principles in urban design are based on the Gestalt principles. The Gestalt principles guide understanding how humans perceive their environment and how they organize and perceive harmonious objects. The "Gestalt Laws," which can be described as principles of organization, are as follows (Polat & Bilsel, 2006):

- Good or straightforward form (simplicity)
- Similarity
- Proximity/nearness

- Good continuation/good curves
- Common fate (direction)
- Familiarity
- Figure/ground

Other principles, known as the **"Palmer-Irvine Principles,"** can be added to these (Polat & Bilsel, 2006):

- Common region
- Object connectedness
- Synchrony
- Closure
- Sense of edges

Urban design leads us to look at planning, the area where urban space is produced, from a broad perspective. In cities, in addition to infrastructure and technical structures, it has become important to find elements that provide vitality and livability and for cities to have a distinct identity. Providing quality living opportunities for the modern city without disrupting environmental integrity and creating successful designs are significant goals of urban design (Larice & Macdonald, 2007).

In conclusion, urban design must play an active role in projects, as economic conditions, collective memory, behaviors and habits, functional needs, and political processes, which primarily affect the city and its inhabitants, should also be considered (Banerjee, 2001). Urban design is not only a tool for physically creating spaces but also an effective tool for organizing urban life and social activities (Moughtin, 1999). Along with the development of spatial values, the social and economic structure in that area will significantly impact guiding cultural developments.

2.2. Transformation and Formation in Urban Space

Understanding cities requires grasping the mechanisms behind creating and transforming spatial forms. The city must be viewed as a system of continuously interacting social processes and spatial forms. This interaction also includes the change in the city's structure over time. As Mumford (1940) pointed out, transforming and constructing the natural environment are layers of designed environments and social forms; all constitute the urban environment. Therefore, the city is both a social and spatial phenomenon with a visible temporal dimension ([Mumford 1940], cited in Çalışkan, 2004).

The activities expected within a space and their required size, volume, and dimensions carry different meanings. Generally, public open spaces and spaces with religious purposes are designed to be large, spacious, emphasized, and monumental. Scale also has its symbolic language. "A non-verbal form of communication," architecture "is like a silent record for the culture that produced it, and just as written history and literature can be read, architecture can be read." Therefore, to explain the relationship between social processes and developments, it has become possible to identify them with the development of various urban forms in different historical periods (Benevolo, 1980). Harvey (2003), in connection with a historical approach, made the following comment: "If we wish to understand the urban forms and spatial configurations that correspond to the social structures of past periods, the symbolic nature of these formations must also be investigated" (Harvey, 2003).

In parallel with this approach, normative theories examine how design affects forms of interpersonal relationships, which is also relevant to urban design. The characteristics of

physical space (location, use, etc.) influence the forms and degrees of interaction between individuals. Physical and spatial determinants in open public urban spaces present this social interaction structure on a broader spectrum than individual preferences. However, the degree and frequency of interaction in a social space depend on the identity and desires of the space's users.

Harvey (2003) emphasizes the necessity of associating the spatial form of the city with the social processes within it, referring to spatial awareness. What is meant by spatial awareness here is understanding the role of space and place in an individual's life story, relating it to the spaces they encounter around them, and understanding how the space separating individuals and society influences their interactions. Spatial awareness helps individuals understand the current relationship between themselves, their surroundings, and their region.

To understand the spatial form of the city in relation to social space and social activities, Rapoport (1981) proposes the following general principles to ensure harmony between lifestyle, environment, and urban space:

- The nature of the group, its characteristics, lifestyles, behavioral rules, environmental preferences, images, cognitive schemas, time/space intervals, etc. should be determined.
- Understanding the mechanisms and defenses used for communication and privacy needs, as well as various sensory formations that are emphasized, is essential.
- Status symbols expressed through place, housing, and other objects, such as environmental meaning and the emergence of social identity, should be understood.

- The nature of activity systems and their distribution in space-time should be known; how they spread across the environment, dominance behavior, and the nature of boundary elements supporting this behavior should be recognized. Social organization, social relationships, networks, connections to the organization of the environment, movement patterns, interaction frequencies, and locations should be understood.

We can observe that the transformation of urban space emerges through many factors. In this context, it is a fact that the act of shaping significantly impacts urban form. Considering negative changes and impacts leads to the formation of monotonous and routine spaces that continuously carry the same meaning.

2.3. The Relationship Between the Act of Shaping and Urban Design in the Transformation of Urban Space

The processes that affect the transformation of urban space, such as the behavioral effects of city dwellers, the decisions made by planners during the planning process, and the functional changes in the use of space over time, provide important inputs in how we perceive space and make it livable. The act of shaping is defined as the spatial product that emerges due to the interaction between the factors influencing the change of space.

According to Polat and Bilsel (2006), "At the urban scale, the act of shaping occurs through unity and interaction; these acts and relationships are crucial in obtaining a unique design language or urban identity/personality. Beyond the difference in scale, by establishing a 'parts and wholes'

relationship and utilizing the richness and diversity offered by the contrasts in self-substance-form dialectics, the approach of 'creating a unique unity' stands out in urban shaping" (Polat & Bilsel, 2006). While emphasizing the interaction between the disciplines of design and planning in designing urban spaces (Table 2.3.), they also highlight the creation of urban personality. As previously mentioned, according to Salingaros (2005), space is one of the most important communication and interaction tools for city dwellers, further emphasizing the importance of urban personality in this context.

In this context, urban design emerges as an important tool in the shaping of the city and the achievement of the act of shaping. Particularly, urban design plays a crucial role when considered as a transition platform between architecture and urban planning. While listing the values necessary for urban design, Lynch (1981) emphasizes that urban space should be livable, easily readable, and learnable, provide satisfaction and perceptibility to people, and convey meaning to the space. He particularly highlights the need for spaces to be systematically created and for their significance to be interpreted through urban design. In this context, Lynch (1981) uses the concept of "City Design" instead of "Urban Design" on a larger scale.

According to Rapoport (1981), urban design is defined as a field concerned with space, time, communication organization, relationships between elements rather than the elements themselves, and the underlying rules in the creation of urban space. In addition to its concern with physical forms, such as housing, roads, recreational areas, infrastructure, etc., it also addresses space organization.

Table 2.3. The Relationship Between Urban Design, Planning, and Architecture (Önal, 1999).

Topics and Criteria	Architecture	Urban Design	Urban Planning
Goals and Objectives	Define architectural environment Shape buildings	Define urban environment Create urban fabric	- Take general and specific decisions on land use, development zones, traffic, etc.
Main Idea/Concept Decisions	Formal/Spatial/Physical Aesthetic/Visual Typological Perceptual Functional Social Cultural Structural Ecological Sustainable Environmental Psychological/Sociological	Formal/Spatial/Physical Visual/Typological/Morphological Perceptual Social Cultural Infrastructure Ecological Sustainable Sociological/Psychological Economic	Physical Typological/Morphological Perceptual Functional Socio-economic Infrastructure Sustainable Environmental Sociological Economic
Elements/Components	- Architectural environment Built environment Natural environment Social environment Cultural environment Perceptual environment	Urban environment Built environment Natural environment Social environment Cultural environment Perceptual environment	Urban environment Built environment Natural environment Social environment Economic environment Political environment
Scale	Building Building groups Urban fabric Square/Plaza Neighborhood Region City	- Building Building Groups Urban fabric Street/Plaza Neighborhood Region City	Neighborhood Region City
Process	- Analysis (area, program, functional, physical - building scale) Concept decision making Building design	- Analysis (area, user(s), functional, physical - urban scale) Synthesis (determination of objectives and goals, specifying design criteria at different scales, developing alternative solution proposals) Decision making on an urban design scheme, program	- Analysis (city, region, country scale) Synthesis (finding predictions about development and growth, decision making) Plan preparation, lawmaking
Final Product	- Design of a building or building group Architectural project Implementation project	- An urban design scheme at the urban scale Plan/Project Regulation Program	- A plan at the urban scale Law (zoning law) Plan (zoning plan) Regulation

In shaping urban space, it is more appropriate to evaluate operational projects at the city scale and specific policies and decisions made at the city and regional scales through an action-oriented approach. In this way, urban design can significantly impact urban space transformation. Thus, urban design is an integral part of the urban and regional planning process. Since cities are environments where social activities and individual behaviors are shaped in time and space, urban design is a dynamic process constantly developing and changing.

In other words, urban design, while directing urban development, organizes an invisible pattern or relationship. In this context, the current configuration of urban design can be evaluated. In some cases, this phenomenon can be described as defining the collective of buildings without solving them individually, and in other cases, it constitutes the legal framework that determines an invisible pattern.

3. CONCLUSION

Urban space is where people spend a significant portion of their daily lives. Although not always a conscious action, the interaction between the space people live in and their lifestyles is shaped by human activities. Within this process, urban space formation involves the actions of planners (through planning projects), architects (through architectural projects), and various other approaches. The change in urban space generally presents a complex structural feature through these shaping actions, and urban space may develop in ways that are beyond what is intended or expected.

In this context, urban space is a three-dimensional representation of the distances, relationships, and interactions

between humans, humans and objects, and objects themselves. Urban design and interdisciplinary interaction play an important role in this process. The components of urban forms, such as transportation patterns and settlement patterns and the interactions between physical, social, economic, and cultural factors, are shaped through planning and design processes, influencing macroform development.

As with the various definitions of urban design, there are different views on its objectives, and these views can change. The general aim of urban design can be described as "establishing the integrity of economic and social life through physical order in urban spaces..."

On the other hand, to provide a theoretical explanation of urban form, the objectives of urban design can be grouped as follows:

- In terms of human and object relationships:
  - Biological and technical objectives aimed at creating a sustainable and long-lasting environment.
  - Objectives with aesthetic and psychological significance.
- In terms of the importance of human relationships:
  - Sociological and psychological goals that highlight people's inner worlds and internal communications.
  - Social objectives related to group functionality, survival, and continuity.

Accordingly, urban design is more than just a spatial/physical planning tool; it emerges as a significant approach resulting from the interaction between space and people. In other words, quality must be achieved in the physical environment, perceptual experiences, and activities to create successful urban spaces. Urban design must be approached this way (Larice & Macdonald, 2007).

It is possible to direct and control spatial formation through urban design criteria and approaches, enabling its continuous development. This process, where shaping actions influence urban space change, allows for the ongoing enhancement of the perceived qualities of the space—its readability, memorability, and livability—through urban design principles. Ensuring continuity requires the active participation of key actors and stakeholders, which is a cornerstone of urban design. Involvement from users and practitioners in the design and planning process is crucial to creating urban spaces that people experience, adopt, and use as they live.

In this context, it is essential to correctly interpret, perceive, evaluate, and track the determinants of the existing urban environment. By leveraging the integration of social and spatial differences, the success of the holistic vision will largely depend on the design and construction processes of the built environment that will make up the whole.

4. KAYNAKÇA

Amal, İ., (1997). *"Investigation of the Relationship between Urban Spatial Structure and Travel Demand in the GTA"*. (Yüksek Lisans Tezi), University of Toronto.

Aydıngün, İ. (2000). *"Kentsel İmgeler ve Kent Kimliği: Bursa'da Üç Yaşam Çevresi Üzerine Bir Araştırma"*. Ankara Üniversitesi, Doktora Tezi, Ankara.

Banerjee, T., (2001). The Future of Public Space: Beyond Invented Streets and Reinvented Places. *Journal of American Planning Association*. Amerika.

Benevolo, K., (1980). *The History of The City*, Scolar Press, London.

Bourne, L.S., (1982). Urban Spatial Structure: An Introductory Essay on Concepts and Criteria. *Internal Structure of City*. Oxford University Press, New York.

Carmona, M., (2002). *"Journal Controlling Urban Design,"* çeviri; Tezer H.K.

Çalışkan, O. (2004). "Sürdürülebilir Kent Formu: Derişik Kent", *Planlama Dergisi*. 3, Ankara, Sy: 33-52.

Çubuk, M. (1997). "Yeni Yaklaşımlar Çerçevesinde Kentsel Tasarım" *8. Kentsel Tasarım ve Uygulamalar Sempozyumu Sunuş Bildirisi*. Mimar Sinan Üniversitesi Şehir ve Bölge Planlama Bölümü, İstanbul.

El-Khoury, R., Robbins, E., (2006). *Shaping The City; Studies İn History*. Theory And Urban Design, Routledge Taylor And Francis Group, London.

Frey, H., (2007). "Designing the City. *Towards A More Sustainable Urban Form"*, Newyork: Bath Press, Newyork.

Harvey, D. (2003). *Sosyal Adalet ve Şehir*, Metis Yayınlar ı, İstanbul.

Karaman, A. (2000). "Dönüşüm Projelerinde Kentsel Tasarımın Rolü'' Kentsel Yenileşme ve Kentsel Tasarım Sempozyumu. *Kentsel Yenileşme ve Kentsel Tasarım Sempozyumu Bildiriler Kitabı*, 28-30 Mayıs 2003, İstanbul, Sy: 3- 5

Kılıçarslan, T. (1996). *Kent Sokakları*, Yapı 175, Ankara.

Krier, R. (1990). *Urban Space*, Rizzoli Inti Publisher, Newyork.

Larice, M., Macdonald, E., (2007). The Urban Design Reader (The Urban Reader Series), Routledge Taylor And Francis Group, London.

Lefebvre, H., (1991). *The Production of Space*, Blackwell Press, London.

Lynch, K., (1954). "The Form Of Cities*," Scientific America*, Cilt. 190, Sayı. 4, Sy: pp. 54–63.

Lynch, K., (1961). "Patterns of metropolitan settlements*," City Sense and City Design*, MIT Press, Cambridge.

Lynch, K., (1981). *"A Theory of Good City Form,"* MIT Press, Cambridge, Massachusetts.

Maoh, H. ve Kanaroglou, P. (2007). "Geographic clustering of Firms and Urban Form: A Multivariate Analysis," *Journal of Geographical Systems*, Cilt; 9, Sayı; 1, Sy: 29–52.

Moughtin, C., (1999). *Urban Design Methods and Techniques*, Architectural Press, Newyork.

Mumford, L., (1940). *The Culture of Cities*, Secker & Warburg, London

Polat E., Bilsel, G. (2006). "Mimarinin Ve Kentin Planlaması'ında Farklılaşan Kavramlar Üzerine…", *Planlama Dergisi*, Sayı; 4, Ankara.

Önal, Ş. (1999). Kentsel Tasarım Uygulamalarında Farklı Yaklaşımlar ve Ele Alışlar: İngiltere Örneği Üzerinden Bir İrdeleme, *Türkiye'de 10. Kentsel Tasarım ve Uygulamalar Sempozyumu*, Sy: 326

Rapoport, A., (1981). Human Aspects of Urban Form, *Perception of Environmental Quality*, Pergamon Press, Oxford

Salingaros, N. (2005). *Principles Of Urban Structure,* Techno Press., The Netherlands.

Strauss, T., Cao, C., Souleyrette, R., R., Shinn, D., R. (1998). *"Transportation And Urban Form: A Case Study Of The Des Moines Metropolitan Areas,"* Transportation Conference Proceedings, Iowa.

Tekeli, İ. (1994). Bir Kentsel Tasarım Kuramının Geliştirilmesi Üzerine Düşünceler, Kent. *Politika, Sanat, Tarık Okyay Anısına Yazılar*. Odtü Mimarlık Fakültesi Basım İşbirliği, Ankara.

Tezer, H., K. (2002). *"Kentsel Morfoloji Bağlamında Kentsel Tasarım Rehberlerinin İrdelenmesi"*. Yüksek Lisans Tezi, M.S.G.S.Ü. Fen Bilimleri Enstitüsü, İstanbul.

Uçkaç, L. (2006). *"Kentsel Tasarımın Kent Kimliği Üzerine Etkileri: Keçiören Örneği"*. Ankara Üniversitesi, Fen Bilimleri Enstitüsü, Peyzaj Mimarlığı Anabilim dalı, yüksek lisans tezi,Ankara.

Ünlü, T. (2006). "Kentsel Mekânların Değişiminin Yönetilmesi", *Metu Dergisi*, Sayı; 2, Ankara.

Ünlü, T., (2009). "Mekânsal Planlamanın Kentin Biçimlenmesine Etkisi: Mersin Örneği", planlama dergisi Dergisi, Sayı; 3, Ankara

Wirth, L., (1964). On Cities and Social Life: Selected Papers, The University of Chicago Press, Chicago.

Zevi, B., Barry, J.A., Gendel, M (1957). Architecture as Space: How to Look at Architecture, Horizon Press, New York

ANALYSIS OF PLANNING DECISIONS SUBJECT TO LITIGATION THROUGH GAME THEORY MODEL: A FRAMING BASED ON AN EXAMPLE[1]

Halime GÖZLÜKAYA[2]

1. INTRODUCTION

The process that began with the examination of winning probabilities in games of chance and strategy has been used in numerous research studies across the scientific world, including political science, economics, sociology, psychology, biology, defense, and artificial intelligence studies. Using game theory in planning has become quite common in recent times. In this theoretical model, strategic decisions are evaluated in planning processes based on a numerical model that assesses the interactions, communications, and distinctions between actors and users.

The game theory model's fundamental characteristic stems from its modeling of decision-maker strategies as either cooperative with or competitive against each other. With this evaluation, the game theory model has long been constructed to assess mutual strategies, objectives, gains, or scores and to determine optimal or favorable-unfavorable moves. The model

[1] Book Chapter: This is the updated version of the work prepared as part of the "SBP 609E Advanced Planning Techniques" course in the Ph.D. program of the Department of City and Regional Planning at Istanbul Technical University.

[2] Research Assistant, Suleyman Demirel University, Faculty of Architecture, Department of City and Regional Planning, halimegozlukaya@gmail.com, ORCID: 0000-0002-2138-8628.

is evaluated in various fields, yielding numerical data and mathematical results.

Urban and regional planning ensures the organized and systematic development of planned growth in sectoral, spatial, and socio-cultural dimensions. In Turkey, this is facilitated by Law No. 3194 on Zoning and the various types of planning defined in the law across different scales. Plans made from the country or regional scale down to the 1/1000 implementation scale, which has official enforcement power, may not always benefit the public, institutions, or legal entities. In cases where these plans violate other laws and regulations, infringe on the public interest, or are inconsistent with the planning processes and procedures, they can be legally reassessed.

Administrative courts are responsible for evaluating legal processes in our country. During this process, the primary criteria evaluated include compliance with planning principles and rules, adherence to planning techniques and conditions, and alignment with the public interest. Different evaluations can be made depending on the status and nature of the case. Effectively concluding the case is important for improving and implementing plans and planning processes.

The core structure of this study examines the planning of lawsuits in Turkey through the game theory model. In this process, parties expressing their claims or defenses are evaluated by experts and judges in terms of compliance with the aforementioned elements. The results of these evaluations have been assessed by structuring them using the game theory model.

The case examined in the study focuses on the reassessment of the 1/5000 scale master development plan and the revision of the 1/1000 scale implementation development plan, as well as the questioning of new planning decisions that

do not exist at higher scales. A significant emphasis of the study is on how outcomes are evaluated if the subject of the lawsuit is framed as a game. This approach to intervention in cities is essential in terms of fundamental rights and freedoms. Evaluating these processes through game theory also highlights the study's uniqueness.

1.1. Method

In many decision-making problems, especially in social sciences, gains cannot be measured in units such as money or time. In such decision-making problems, a preliminary study is essential for determining the gains. Classifying strategies based on their order of preference and satisfaction levels is a widely used method. As described by Başaran and Uysal (2006), Isard and Reiner (1962) developed a classification method to measure utility. Using this method, created to measure the degree of satisfaction, strategies were classified in terms of benefit, prestige, and expectations and numbered -1, 0, and +1. It is possible to classify strategies as least desired and most desired (Akt: Başaran Uysal & Bölen, 2006; Shubik, 2002; Isard & Reiner, 1962). Representative numerical values assigned for each strategy are used in games structured by evaluating similar strategies mutually. In the approach above, points are assigned representatively as 1 and 0, while gains and losses are evaluated as - and +.

In this context, the study aims to examine the planning decisions taken regarding administrative jurisdiction through game theory. For this purpose, the case includes a game structured with plaintiffs, defendants, and expert evaluations. Due to the inability to carry out a numerical assessment, expert findings and evaluations will be used as control data to determine mutual gains through strategies and gameplay.

Many games played with strategic data are structured using variable-sum or non-zero-sum models. In such competitive, variable-strategic summative games, the total result is generally not zero, meaning one player's gain is not equal to another player's loss. In these games, players can establish both competition and cooperation, and these behaviors can influence the outcome of the game (Elibol, 2017). However, in the game constructed with this public case, this situation does not occur. All parties design their strategies in the game to win the case; however, the sums of strategies would be more accurate for non-zero-sum games.

Within the chosen game theory model, the aim is to structure a non-zero-sum two-player game for the selected public case. The questions the administrative court requests answers to from experts have been considered upper strategies. Lower strategies will be evaluated based on the plaintiffs' claims and the defendant's defenses in the case. Based on these assumptions, three (3) main strategies have been determined to evaluate alternative planning decisions: A: Compliance of Zoning Plans with Zoning Legislation; B: Compliance with Planning Techniques and Urban Principles; C: Public Interest. Under these basic criteria, each main strategy identified in the expert report will be evaluated. However, examining the case file reveals that there is not a sufficient number of strategies (claims/defenses) for each main subheading. Determining gains and losses from the expert evaluations has become crucial in structuring the game. A total of seven (7) sub-strategies are determined for main strategy A, ten (10) for main strategy B, and five (5) for main strategy C, and the strategies presented by the parties for each strategy will be evaluated on a scale of 10 points. In total, main strategy A will be assessed with 70 points, main strategy B with 100 points, and main strategy C with 50

points. Points are awarded as + for strategies that comply with expert evaluations, - for non-compliant criteria and criteria that do not exist, + for the benefit of one player, and - for the other.

With the structuring and conclusion of the game, it will be determined whether the questions requested by the administrative court in the expert report have been adequately answered.

2. GAME THEORY

Game Theory is a set of analytical tools that solve a decision-making mechanism rather than merely as a method. The most fundamental assumption of the theory is that players involved in the decision-making process take into account their knowledge and experience regarding the game as they make decisions, acting rationally in pursuit of their expectations (Çubukçu, 2015; Osborne & Ariel, 2005).

In game theory, it is essential for players to choose strategies and utilize them correctly. The primary goal is for the strategies within the game to yield gains or, at the very least, minimize losses. The fundamental elements upon which game theory is based fall into four categories. Games can be played in ordinary social phenomena, economic evaluations, initiatives, governmental structures, and inter- or intra-national organizations. The tactical strategies to be followed in the game depend on the possible mutual strategies that the parties apply to each other. The tactics developed due to the game being played once or multiple times may change. Therefore, it is certain that the outcome of the game and the gains will change. In game theory, players must accept and adhere to the rules (Allan &

Dupont, 1999). The four elements/categories found in a game theory problem are as follows (Çubukçu, 2015):

At least two players (single or multiple) act rationally and consider their own interests.

- Each player has a finite or infinite number of strategy alternatives.
- Each player has information about the possible gains associated with strategies.
- The outcome of the game results from the strategies chosen by the players.

In game theory models, each game is constructed with different approaches and examples and has fundamental assumptions, strategies, and variables. These are the essential data that determine whether the game is balanced. The most crucial equilibrium in game theory is the Nash equilibrium. In this study, certain concepts and assumptions have been addressed to establish equilibrium. The fundamental concepts and assumptions used in Game Theory (Binmore, 2007) are as follows:

Players: Individuals or institutions trying to optimize their objectives in a game. There are at least two players in the game, and it is assumed that they act rationally and do their best to win.

Strategies: The options for actions available to each player. Any strategy for a player constitutes rules, and the options determine the choice of the game. If there is an uncertain number of options for any player, the game is continuous, not finite. If the number of options is specific, the game is finite.

Gains or Payments: The game's outcome can be winning, losing, or withdrawing from the game. Each outcome or payment determines each player's gain or loss against the opponent, which can be negative, positive, or zero.

Payment Matrix: This matrix shows the gains or losses from various combinations of players' strategy choices. The elements of the payment matrix can be positive, negative, or equal to zero. If any element of the matrix is positive, the player in the column pays the player in the row that amount. If any element of the matrix is negative, the player in the row pays the player in the column an amount equal to the absolute value of that negative element. If an element of the matrix is zero, neither player makes a payment to the other. The payment matrix represents the values of just one player.

Games: Games are generally classified according to the number of players. Two-player, three-player, or (n)-person games can be established. If $n=2$, the game is considered a two-person game; if $n \geq 2$, it is an n-person game. Games can also be classified as zero-sum, non-constant-sum, and non-zero-sum games.

In game theory, games are addressed in two different forms: strategic form and extensive form. In strategic-form games, players simultaneously determine their strategies before the game starts, while in extensive-form games, players make moves in turn. Game theory models examined in strategic form are also referred to as "normal form" or "matrix form" games. In these types of games, the basic elements include a set of strategies containing all possible behaviors that the players can follow, along with the outcomes/gains that may arise from following those strategies, and a preference ranking reflecting the players' preferences among these outcomes (Kaya, 2019).

A game has some fundamental elements, such as players, strategies, gains, information, and equilibrium. The basic elements of a game in strategic form are provided below (Başaran Uysal & Bölen, 2006):

i) A finite set of n players,

ii) A set of pure strategy options for each player,

iii) A gain function indicating the expected utility gain for player i, denoted as ui(s).

In a gain matrix, values indicate the gains of players corresponding to each player's possible choice. Each player determines the strategy they will choose based on the expected gain.

3. LEGAL INFRASTRUCTURE OF PLANNING IN TURKEY

Regional and urban plans should ensure the quality of life and conditions for future residents by interpreting their past states and current structures. In these ongoing planning processes, every decision should focus on resolving potential future problems holistically rather than merely addressing the city's current issues. Every decision and recommendation made for the city is very important in this context. Notably, in changes related to urban land use or planning decisions, it is crucial to approach the issues of urban land and urbanization.

Law No. 3194, the Zoning Law, is the foundational law of the planning system in Turkey. According to Articles 6 and 8 of the Zoning Law, all plans are binding and are categorized based on the areas they cover and their objectives. Furthermore, a Spatial Planning Regulation was established in 2014 under the

Zoning Law. The regulation specifies the new arrangement of plan hierarchy. A requirement has been introduced for lower-scale plans to comply with the main planning principles, strategies, and decisions determined in higher-scale plans.

Zoning plans are prepared to improve the physical environment, guide the site selection and development trends of potential investments, and establish the best balance for protecting and using land. Plan modifications can be made per the provisions stipulated in the laws, considering the planned area and existing constructions in the surroundings, as required by conditions.

The risks caused by unplanned settlements not only obstruct spatial and socio-cultural development but also lead to public order violations that can threaten security. Every adverse condition arising in unplanned settlements makes meeting the public order needs essential for social life impossible. In addition to security risks, societal needs can only be appropriately identified and addressed in settlements with zoning plans, particularly in terms of infrastructure and services. Therefore, zoning plans express the determination of future goals based on the current conditions of these areas, allowing for the regulation of urbanization and infrastructure according to the necessities of users (Çolak & Öngören, 2014).

Planning studies aim to maximize benefits by evaluating existing opportunities and are intended to serve the public interest. In planning studies considering the public interest, a general approach should be taken in the planned area, ensuring that every site included in the planning is included. It is unacceptable for a planned area or activity to be excluded and made advantageous by specifying a particular circumstance. If

an area that should be included in planning is left out, it may result in loss of rights and unnecessary damages.

In any planning work, what determines its function and the right to develop is not the land ownership but rather the data obtained from scientific analyses, research, and evaluations. Decisions regarding structural conditions and land use must be based on evaluations such as the geological structure of the planning area, the climatic values of the region, the susceptibility to natural disasters like floods and earthquakes, and the condition of cultural and natural heritage to be preserved (Çolak & Öngören, 2014).

Central and local administrations, public institutions, and organizations authorized to conduct planning studies of all scales and characteristics must primarily consider the public interest. They must adhere to laws and regulations as a guiding framework to achieve this. Both public and private entities are granted the right to sue plans for any problems and incorrect decisions that may arise during the planning and implementation processes.

Since the essence of the rule of law is the protection of individual's rights and freedoms against the state, it is essential to recognize the right of those who believe they have suffered damages from urban plans to seek judicial recourse. Therefore, the public contributes to preparing urban plans where the public interest is not considered and planning principles are deemed violated. For this purpose, autonomous civil society organizations are also granted the right to voice their opinions and participate. This ensures a balance between their interests and the objectives of planning. This process mitigates public resistance toward unfavorable circumstances following planning. The principle of transparency in plans guarantees that

the public can assess the plan and appeal to the relevant authorities against any injustices and irregularities they perceive. The objections of the public or legal persons against the planning studies are evaluated, and administrative courts and the Council of State in Turkey take necessary actions. Resorting to judicial remedies against urban plans helps to eliminate objections to the democratic nature of planning (Keleş, 2017).

This process has led to quite intense administrative and judicial processes in Turkey. However, situations open to interpretation outside of laws and regulations, decisions with unpredictable outcomes, and evaluations regarding socio-cultural, economic, and spatial issues are primarily assessed by the 6th Administrative Courts, often based on expert reports. These evaluations ensure the plans are implemented, comply with the public interest, and fulfill urban planning principles and fundamentals.

4. PLANNING SYSTEM, PLANNING PROCESSES, AND ACTORS IN TURKEY

As mentioned, Law No. 3194 on Zoning regulates Turkey's planning system. This law defines and specifies all processes and practices regarding different types and structures of the planning system, from national to local scales. All phases and structures outlined in the Zoning Law operate within an administrative process and framework. According to Law No. 3194, the concepts of planning are as follows:

Regional Plans are plans prepared to determine socioeconomic development trends, the development potential of settlements, development targets related to sectors, and the distribution of activities and infrastructure.

Environmental Order Plan: Defined in the Zoning Law as "a plan that determines decisions on settlements and land use, such as housing, industry, agriculture, tourism, and transportation, in accordance with the national and regional planning decisions." In the dictionary of urban science terminology, these plans are described as "drafts prepared in connection with regional planning for large cities or areas required to be designed; regions or significant areas that affect these regions and establish principles regarding the protection, use, and settlement regulations." Environmental order plans are typically scaled at 1/100,000 and 1/25,000.

Zoning Plan: According to the dictionary of Urban Science terminology, it is defined as "a legally approved document that, in order to protect the health of the inhabitants of a city or town, establish a balance among urban functions such as settlement, work, rest, and transportation based on national, regional, and urban data, aims to find the best solutions within the available opportunities, showing how land parcels are to be used and illustrating major types of regions, while also noting the land-cover conditions where applicable" (Keleş, 2017).

Zoning Plan: According to Article 5 of the Zoning Law, a zoning plan represents how land parcels will be used and the main types of regions drawn on current status maps by regional and environmental order plans, including the surface conditions, if available.

Implementation Zoning Plan: This plan, drawn on the current status map and incorporating surface conditions if available, encompasses the implementation of the plan and all the details necessary for its execution. Zoning plans must be prepared. These plans specify various urban areas, building blocks, roads of towns and cities, density arrangements of

building blocks, and the application stages that will form the basis for zoning implementation (Keleş, 2017).

In this context, spatial plans, according to the law, consist of "Environmental Order Plans" and "Zoning Plans" in accordance with Spatial Strategy Plans regarding their scope and objectives. Zoning plans are prepared as both master zoning plans and implementation zoning plans. Each plan is prepared in accordance with the plan at the next higher level.

In local administrations, policies that will guide the physical development of the city are determined in the finalized zoning plans. The policies guide daily decisions by local administration bodies and the actions and procedures to be undertaken. Other legal documents, such as zoning implementation programs and zoning regulations prepared for implementation, are organized within the framework defined by the zoning plan. The zoning plan is the fundamental document for all zoning activities (Keleş, 2017). In spatial strategy plans, the goals presented in the development plan, region plans, if available, regional development strategies, and other strategic documents are taken into account.

A city plan does not consist solely of maps and plan sheets. It also includes a report containing various research results and a list of proposals related to the planned civil engineering actions, among other documents. In a city plan, the following fundamental elements are included in relation to one another (Keleş, 2017):

- The location and nature of the proposed land uses. This plan shows areas designated for urban functions, such as those exclusively for human habitation and those for commercial and industrial establishments.

- Necessary areas for cultural and recreational activities: parks, playgrounds, children's gardens, zoos, stadiums, etc.
- Areas designated for transportation: avenues, streets, roads, land, sea, and air routes, including terminals and parking areas for each.
- Structures allocated for public services: schools, hospitals, post offices, and other official buildings.
- Areas designated for some unique public structures: facilities such as water, electricity, gas, and sewer systems.
- The city plan also includes areas related to the first five points, including slum clearance, urban transformation, zoning control areas, congestion relief, and long-term zoning programs.

Planning studies in light of the Zoning Law and legal regulations should be approached hierarchically. The example case file discussed in this study is related to an issue where various regulations were involved in this process. It is clear that various institutions, actors, and binding regulations exist within the planning system in Turkey. Implementation of zoning plans, master zoning plans, and other plans are also shaped as regulatory frameworks under other laws and regulations in this process. For example, in Law No. 2918 on Traffic, which came into force on October 18, 1983, roads outside municipal boundaries are distinguished from those within municipal boundaries, and the types of structures requiring permission are enumerated differently. While the distance for highways outside municipal boundaries is 50 meters, no distance is stipulated for structures to be built alongside the roads within municipal

boundaries. For structures such as gas stations, service stations, filling and inspection stations, public places, parking lots, garages, terminals, factories, business centers, marketplaces, recreational areas, tourist facilities, mining and oil installations, and vehicle maintenance, repair, and sales places to be constructed within a 50-meter band from both sides of the highways, obtaining permission from the organization responsible for the maintenance and repair of those highways is mandatory (Keleş, 2017). Although the regulatory system is seen under the zoning law, obtaining necessary opinions from different institutions and organizations is essential. This is important for the functioning of administrative processes and ensuring the interconnectedness and integrative nature of planning.

5. FRAMEWORK OF PLANNING DECISIONS SUBJECT TO LITIGATION AND THE CONSTRUCTION OF THE GAME

The administrative judiciary system in Turkey plays a significant role in examining and regulating planning processes. Based on their scale, all plans possess spatial, physical, and socio-economic enforcement power. In this context, erroneous solutions that arise during the planning process, practices that violate laws and regulations, and situations in which the public interest is infringed upon lead to the right to legally challenge the existing plan and planning decisions as a public lawsuit. As mentioned in previous sections, these processes are evaluated by the 6th Administrative Courts in our country.

Within the legal processes, the planning practices appealed by the plaintiffs involve the defense of the situation by the parties being sued, such as the plan's authors, relevant

institutions, etc. In this process, whether the subject of the lawsuit is appropriate or not is evaluated by administrative courts as two different parties. During the lawsuit processes, expert experts' opinions on the subject are sought, known as expert reports. In these reports, the experts are expected to respond to fundamental questions determined by the presiding judge, which will influence the course of the case. Evaluation of the claims and defenses presented reciprocally takes place during such a process.

The game theory model is fundamentally structured around mutual players determining the correct strategies to win or lose the game. This study aims to analyze the sample case file using the game theory model. In the examined case file, the plaintiff requests the annulment of the 1/1000-scale implementation zoning plan approved by the Municipal Council and the suspension of execution regarding altering the 1/5000-scale master zoning plan that underpins this plan. Additionally, it is claimed that the alteration is unlawful, that it is mandatory to show the legend in the 1/25,000-scale master zoning plan, that the transformation of residential land into a fuel station area contradicts regulations, and that an equivalent area has not been designated to replace the removed green space.

In this case, the authorized judge requested that the experts prepare a report addressing fundamental questions. These requests and questions pertain to the pre-permit document for the passage road of the construction activity currently underway for the fuel and LPG station as follows:

- Is it compliant with the zoning legislation of the 1/5000-scale zoning plan?
- Is it compliant with planning techniques?

- Is it compliant with urban planning principles?
- Is it suitable for the public interest?

The expert report indicates that the construction of the fuel station in the disputed area is relatively complete but has yet to open for operation. It has been determined that there is a 12-meter-wide vehicle road on the west facade of the subject parcel, a 10-meter-wide pedestrian road on the south facade, a 50-meter-wide Western Ring Road on the east facade, and vacant land on the north facade. Additionally, 11-story residential areas are located northwest of the parcel (Figure 5.1.).

Figure 5.1. Location, Area, and Surroundings of the Fuel Station

The fuel station and commercial area are designated as a residential settlement area in the 1/25000-scale master zoning plan, as shown in Figure 5.2. In this case, it has become necessary to examine the lower-scale 1/5000 master zoning plan and the 1/1000 implementation zoning plan. Additionally, situations that could not be depicted at the scale of the 1/25000 master zoning plan have been explained in the plan notes.

Figure 5.2. Status of the Property in the 1/25000 Scale Master Zoning Plan

Based on the fundamental assessments and the examination of the case file, evaluations in the expert report regarding the area have been made, as shown in Table 5.1. These evaluations involve determining the upper strategies for the questions posed to the expert, allowing for the structuring of the game theory model, and subsequently identifying the lower strategies for the players and the expert according to these upper strategies. Accordingly, the expert report indicates 5 lower strategies for Strategy A, 10 lower strategies for Strategy B, and 3 lower strategies for Strategy C.

Table 5.1. Results of the Expert Report for the Case File / Strategies

EXPERT EXAMINATION		
A: Compliance of zoning plans with zoning legislation	**B: Compliance with planning techniques and urban planning principles**	**C: Public benefit suitability**
1/25000 Master Plan has been canceled on 10.06.2016,	There is a green area of 10 m along the western ring road,	According to the regulations, the nearest 1 km. There is no fuel LPG station nearby, and it is needed on the highway route,
1/25000 Nazım Development Plan does not show LPG and Gas stations in the whole plan,	In the 1/5000 Master Plan and 1/1000 Implementation Plan, 2235 m2 of the area is organized as fuel LPG and 2316 m2 of trade area with the construction conditions,	The nearest LPG station has a different facade,
In the 1/100000 Environmental Plan, the related area is within the urban settled area.	1/25000 scale Nazım zoning plan is also in housing use by specifying the construction conditions,	Making decisions about the use of the area that may be needed according to the development potential of the area and considering the public interest,
1/100000 Environmental Plan was put into effect after the plan changes,	Before the plan changes of the General Directorate of Highways; 25 m. (min.) If there is a building approach distance, abandonment operations should be carried out in the name; there is a view that there is no harm when conditions are provided,	
There is no LPG filling station at least 1 km away,	Receiving the Pre-Permit Certificate from the 13th Regional Directorate of Highways,	
	Compliance with the provisions of the law Regulation on the facilities to be built and to be opened by the highways,	
	The appropriate opinion of the General Directorate of Highways will be considered invalid if the 10 m zoning pedestrian road in the southwest (closed to pedestrians) is opened to vehicle traffic,	
	There is a 12 m zoning road between the primary school and	
	Primary school and safety valve between 25 m. distance,	
	According to the zoned road between the elementary school, there is a difference of 4 meters in elevation,	

In the framework of the game, a non-zero-sum two-player game model has been utilized. For the planning issues involved in the lawsuit, the Defendant is assumed to be Player I, while the Plaintiff is Player II. The claims and defenses presented during the lawsuit process have been classified as lower strategies based on the main strategies determined by the expert evaluation. Player I's strategies are provided in Table 5.2, and Player II's strategies are shown in Table 5.3.

As indicated in Table 5.2 above, Player I has 5 lower strategies for Strategy A, 6 lower strategies for Strategy B, and 1 lower strategy for Strategy C.

Table 5.2. Strategies of Player I in the Game

I PLAYER (CASE)		
A: Compliance of zoning plans with zoning legislation	*B: Compliance with planning techniques and urban planning principles*	*C: Public benefit suitability*
1/5000 and 1/1000 scale development plans should not be canceled as the objection process has passed,	OME Passway permit Yolu from UKOME has been received,	Conformity of the public interest with the legal norms as the planning operations are handled in relation to the needs of the region considering the integrity of the plan, such as environment, transportation, and traffic,
1/25000 scale zoning plan does not show the fuel station within the settlement spot,	The distance of the subject parcel to the school area is 17 m. (meets the minimum requirement of 13.3)	
1/5000 scale reconstruction plan is planned as 1/ fuel service and LPG station and trade area 1/ with the modification of 1/1000 plan,	The main building is 27.80 m. where (min. 25 m. condition is provided)	
Compliance with the plan hierarchy	The fuel-LPG station façade to the main road is 50 m. (minimum 40 m.)	
The 1/100000 scale Environmental Plan was made before it came into force, and this floating plan was made in accordance with the existing top-scale plans,	The 10 m green protection tape in the planning change has not been removed,	
	It meets the technical requirements for the Fuel-LPG station.	

Table 5.3. Strategies of Player II in the Game

II PLAYER (DAVACI)		
A: Compliance of zoning plans with zoning legislation	**B: Compliance with planning techniques and urban planning principles**	**C: Public benefit suitability**
1/100000 scale Environmental Plan is not in accordance with the plan and, therefore, against the hierarchy of the plan,	U Liquefied petroleum gas (LPG) refueling station - for road vehicles - is in breach of the provisions of the communiqué	It is contrary to the public interest to introduce fuel and LPG without creating a buffer zone with residential areas,
	The distance conditions under the heading gari Minimum safety distances adı are not met by the existing 1/1000 scaled implementation zoning plan with the 12 m zoning road between the primary school area and the southwest of the parcel,	Traffic safety rules are ignored by providing an exit only on the parcel subject to the lawsuit on the 6.5 m divided road,
	Does not provide minimum parcel size for LPG-Fuel stations to be opened on the routes under the responsibility of the General Directorate of Highways,	
	The main building entrance is 25 m. does not comply with the conditions,	
	There is a difference between the land registry and the planning in the approved zoning plan,	
	10 m. width of the green protection band remains in the specific parcel, and the main decision of the plan is broken,	
	Due to the difference of 5 meters in elevation, the silhouette of the region will be disturbed by the filling of the parcel in the parcel,	

As indicated in Table 5.3 above, Player II has 1 lower strategy for Strategy A, 7 lower strategies for Strategy B, and 2 lower strategies for Strategy C.

When all tables are considered and compared—encompassing both overlapping and non-overlapping strategies—it has been determined that there are a total of seven

(7) lower strategies for Strategy A, ten (10) for Strategy B, and five (5) for Strategy C. The strategies presented by each party for each strategy have been evaluated on a scale of 10 points. Strategy A will be evaluated for 50 points, Strategy B for 100 points, and Strategy C for 50 points. Strategies that align with the expert evaluations receive a + score, non-compliant criteria receive a – score, and for criteria that do not exist, the player that benefits from it receives a + score while the other receives a - score. According to this scoring system, the gains obtained by the players for Strategy A are shown in Table 4. Player I has received a total of +50 points for Strategy A, +20 points for Strategy B, and +30 points for Strategy C. Player II, on the other hand, has received a total of -10 points for Strategy A, +60 points for Strategy B, and +10 points for Strategy C. The scores obtained by the players for each of their lower strategies are provided in Tables 5.4, 5.5, and 5.6.

Table 5.4. Players' Gains for Strategy A

Gains obtained by players from lower strategies for Strategy A								
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**Total Points**
Player I	+10	+10	-10	+10	+10	+10	+10	+50
Player II	-10	+10	+10	-10	+10	-10	-10	-10

Table 5.5. Players' Gains for Strategy B

Gains obtained by players from lower strategies for Strategy B											
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**Total Points**
Player I	+10	+10	-10	+10	+10	+10	+10	-10	-10	-10	+20
Player II	-10	+10	+10	-10	+10	+10	+10	+10	+10	+10	+60

Table 5.6. Players' Gains for Strategy C

Gains obtained by players from lower strategies for Strategy C						
	I	**II**	**III**	**IV**	**V**	**Total Points**
Player I	+10	+10	+10	+10	-10	+30
Player II	-10	-10	+10	+10	+10	+10

A game theory matrix emerges when all gains and losses are evaluated strategically, as shown in Table 5.7. According to the matrix, when maximum gains are determined, the value for Player I in Strategy A is +50 points. When Strategy A is considered in terms of the compliance of Zoning Plans with the zoning legislation, the most significant gain for Defendant can be evaluated as the fulfillment of the conditions in the planning processes and the statute of limitations concerning Plaintiff's annulment request. The maximum gain for Player II is observed to be in Strategy B. When Strategy B is considered in terms of compliance with planning techniques and urban planning principles, it becomes evident that the technical issues Plaintiff has objected to are justified. There are hazardous distances that are technically inappropriate in addition to the presence of the pre-permit document for the passage road.

Table 5.7. Players' Gain Matrix

	Player II			
Player I		**A**	**B**	**C**
	A	**(+50,-10)**	(+50,+60)	(+50,+10)
	B	(+20, -10)	**(+20, +60)**	(+20, +10)
	C	(+30, -10)	(+30, +60)	**(+30, +10)**

6. PLAYING THE GAME AND CONCLUSIONS

In playing the game, the strategies chosen by players who are partially aware of each other's strategies play an important role in increasing gains and minimizing losses. In the structured game theory model, when Player I prefers Strategy A, Player II must respond by choosing Strategy B to win. When Player I chooses Strategies B or C, Player II should again select Strategy B to be able to win the game. However, when strategies are chosen mutually if both players choose Strategy A, Player I emerges as the winner. If both players choose Strategy B, Player II wins. If both players select Strategy C, then Player I is again the winner.

In this scenario, when considering strategies in a mixed manner, Player II manages to achieve the highest score with Strategy B (+60 points). Analyzing the evaluation of the mutual main strategies, Player I wins the most games.

As a result of this assessment, according to the game theory model, Player I is the winning player in the most frequently selected strategies. Although there are situations where Player I decreases their gains, they win in terms of both the compliance of Zoning Plans with zoning legislation and adherence to the public interest. However, when considering the conflict arising from the legal evaluation of the planning processes and the relevant assessments, technologically, they may be strategically losing. In other words, if the annulment lawsuits had been appealed with different strategies within the legal timeframes after the plan was suspended, Player II would have won both legally and in the context of the game theory model.

As can be understood from the evaluation in the game theory model, the strategies selected mutually have yielded the same result as the legal assessment of the subject matter of the lawsuit.

7. KAYNAKÇA

3194 İmar Kanunu;
http://www.mevzuat.gov.tr/Metin1.Aspx?MevzuatKod=1.5.3194&MevzuatIliski=0&sourceXmlSearch=imar&Tur=1&Tertip=5&No=3194.

Allan, P. Dupont, C. (1999). ”International Relations Theory And Game Theory: Baroque Modeling Choices And Empirical Robustness,” *International Political Science Review*, vol: 20, no:1.

Başaran Uysal, A., Bölen, B. (2006). Su havzasında Planlama ve Oyun Teorisi, *itü dergisi/a mimarlık, planlama, tasarım*, Cilt:5, Sayı:2, Kısım:2, 187-196

Binmore, K. (2007). *Game Theory A Very Short Introduction*, Oxford University Press, Newyork.

Cengiz, Ö. (2005). *Oyun Teorisi ile Ulaşım Ağ Tasarımı*, Pamukkale Üniversitesi, Fen Bilimleri Enstitüsü, (Yüksek lisans Tezi).

Çalışkan, B , Yasin, M . (2014). Onar-Sarıca-Duran Hukuk Devleti Günü- İmar, Planlama, Mülkiyet, Kamu Yararı, *İdare Hukuku ve İlimleri Dergisi*, 17 (1), 11-12. Retrieved from https://dergipark.org.tr/tr/pub/iuihid/issue/47141/593182

Çolak, N., İ., Öngören, G. (2014). İmar Planları, *İmar Uygulamaları ve İptal Davaları*, Öngören Hukuk Yayınları, İstanbul.

Çubukçu, M. (2015). *Planlamada Klasik Sayısal Yöntemleri*, Nobel yayınları, 2. Baskı, Ankara.

Elibol, M. (2017). *Oyun Teroisi ve Toplu Kazanç Stratejileri*, Namık Kemal Üniversitesi, Sosyal Bilimler Enstitüsü, Çalışma İktisadı Anabilim Dalı, (Yüksek Lisans Tezi), Tekirdağ.

Kaya, E., (2019). *Oyun Kuramı Çerçevesinde Suriyeli Mülteci Krizi*, https://www.researchgate.net/publication/330181949

Keleş, R. (2017). *Kentleşme Politikası*, İmge Kitabevi, Ankara.

Osborne, M., J., & Rubinstein, A. (2005). *Solution Manual for A Course in Game Theory*, The MIT Press Cambridge, Massachusetts London, England,

Özkan, H., A., 2012. *Planlama Sistemlerinde Esneklik Kavramı: Türkiye Üzerine Bir Analiz*, (Yüksek Lisans Tezi), Fen Bilimleri Enstitüsü, İstanbul Teknik Üniversitesi, İstanbul.

Urhan, U., B., Akin, Z. (2015). A Game Theoretic Approach to Model Financial Markets: Guessing Game, Ed. Christian Schmıdt, (2002). *Game Theory and Economıc analysıs, AquetEvolution in Economics*, Press; Routledge Advances İn Game Theory, Newyork. https://www.researchgate.net/publication/228419365

www.mevzuat.org

Yılmaz, Genç, S, Kadah, H. (2018). *Oyun teorisi ve Nash'ın Denge Stratejisi*, Iğdır Üniversitesi Sosyal Bililimler Dergisi / IgdUnivJourSocSci, Sayı / No. 14, Nisan / April 419-440 Araştırma Makalesi / Research Article,

DEVELOPMENT OF SUSTAINABILITY IN TURKEY AND THE WORLD: AN INQUIRY THROUGH LEGAL LEGISLATION AND STRATEGIC DOCUMENTS [1]

Fatma İrem YILDIRIM[2]

Gözde EKŞİOĞLU ÇETİNTAHRA[3]

1. INTRODUCTION

One of the important factors in the transformation of modern society is the industrial revolution. As modern life develops, negative effects on life and space such as rapid industrialization, uncontrolled population growth, unconscious construction, resource consumption, and pollution have also emerged. This situation caused the environment to be destroyed in a way that has never been seen before, and this process continuous to today (Du Pisani, 2006; Grubb, Koch, Thomson, Sullivan & Munson, 2019; Kaplan, 1999; Mebratu, 1998; Robinson, 1993; Talbot, 1980). Moreover, it has created multidimensional and profound environmental, economic, and social impacts. Social inequalities, poverty, decline in public health, ecological refugeeism, increase in violent acts, and

[1] This paper was produced from the master thesis that titled "Determination Of Sustainable Neighborhood Criteria With Analytic Hierarchy Process (Ahp) To Create A Base For A Local Certification System". The thesis was prepared in DEU Graduate School of Natural and Applies Sciences Institute, Department of City and Regional Planning, Urban Design Master's Program.

[2] M.Sc., Architect, Dokuz Eylül University, The Graduate School of Natural and Applied Sciences, Orcid: 0009-0005-9968-0951, y.irem.yldrm@gmail.com

[3] Assoc. Dr., Dokuz Eylül University, The Graduate School of Natural and Applied Sciences, Orcid: 0000-0001-9746-495X, gozde.eksioglu@deu.edu.tr

settlements that have lost their local identity have appeared (Bibri & Krogstie, 2017; Carleton & Hsiang, 2016; Haines & Patz, 2004; Islam & Winkel, 2017; Levy & Patz, 2015; Parry, 2007). The crisis in all areas that emerged because of industrialization, especially the climate crisis, has become one of the most fundamental discussion topics in the search for sustainable living spaces (Mensah, 2019).

Environmental pollution has been a concern since the times of ancient Egyptian, Mesopotamian, Greek, and Roman civilizations. Today, pollution-related issues are recognized as problems requiring various disciplines' expertise (Figure 1). Since "natural resources cannot meet the needs of a growing population" theory, today it has become clear that creating a sustainable world is achieved through harmony between scales; economic, social, and spatial arrangements are critical. At this point, international policies and strategies formed in the context of expertise and international and national legal regulations also have an important place.

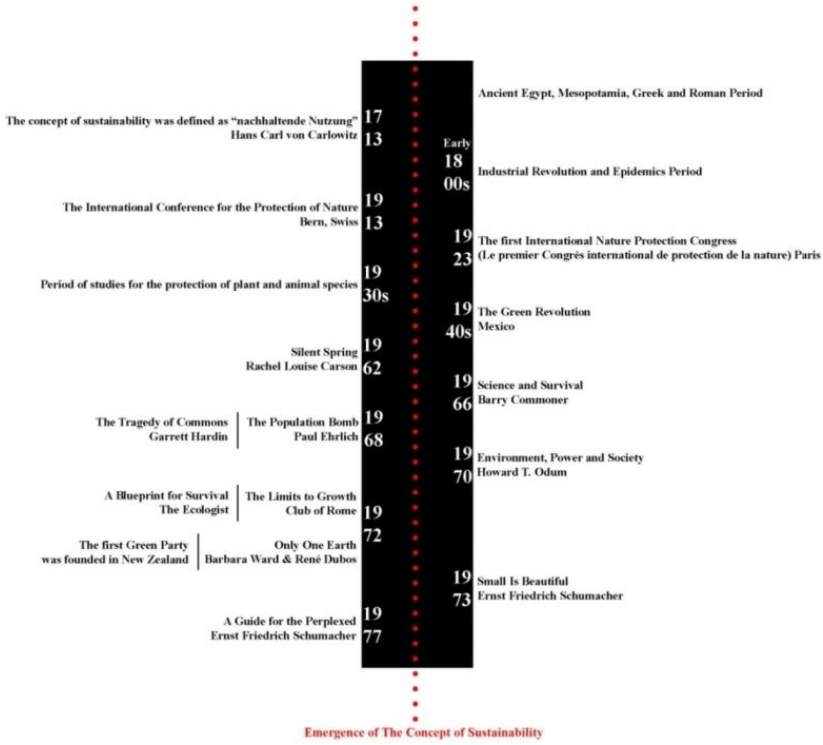


Figure 1. Emergence of the concept of sustainability (Yıldırım, 2024, page 13).

2. THE INFLUENCE OF SUSTAINABILITY CONCEPT DEVELOPMENT ON GLOBAL POLICIES AND STRATEGIES

By the late 18th century, the transportation of people and goods increased with the transition to machine-based production in Great Britain. Cities grew with the production and labor force concentrated in the centers. For this reason, environmental destruction began manifesting itself in the changing organization of urban space. Inadequate waste regulations, sewage contamination of limited water resources, and problems with

access to clean air and sunlight are a few examples of this destruction. With rapid urbanization and developing trade routes, epidemics spread rapidly (Gallion, 1950; Hall, Hall, & Tewdwr-Jones, 2019). In 1842, Edwin Chadwick published a report revealing the link between unfavorable living conditions and these epidemics (Chadwick, 1843; Peterson, 2003). In 1854, British physician John Snow concluded that the main source of the cholera epidemic was urban infrastructure as a result of his studies in London (Koch, 2004; Parkes, 2013; Snow, 1849). In addition, the Royal Commission on the Health of Towns published reports on the subject to find solutions to urban health problems during this period. The reports were among the documents that laid the foundations of modern urban planning (Hall, et al., 2019).

In 1913, the first International Conference for the Protection of Nature was organized in Bern. Environmental studies, which paused with the First World War, continued with the second International Conference for the Protection of Nature in 1923. In the 1930s, studies were carried out mostly on the protection of plant and animal species (International Union for the Conservation of Nature [IUCN], 1988; Ross, 2015;).

In the 1940s, the "Green Revolution" was launched in Mexico and innovations in agricultural practices were developed (Evenson & Gollin, 2003; Pingali, 2012). In 1962, Rachel Louise Carson wrote about the increasing use of pesticides through the Green Revolution and their environmental damage in her work "Silent Spring" (Carson, 1962). Another important work of the period dealing with ecosystem degradation and environmental destruction was "The Population Bomb" written by Paul Ehrlich in 1968 (Ehrlich, 1968). It is possible to interpret these works as important building blocks for the environmental protection movement of the late 1960s.

The "Wave of Economic Growth" that emerged in the 1950s was followed by the "Wave of Education and Training" in the 1960s and was replaced by the "Wave of Environmental Protection" in the 1970s (Binswanger, Bonus, & Timmermann, 1981). The 70s was a period when solutions were developed in addition to identifying problems related to environmental protection. At this point, the understanding of "nature conservation" that increased in the late 1960s was replaced by "ecological approach models" in 1970. The second generation of works produced in this period includes the "The Limits to Growth" Report published by the Club of Rome, E. Goldsmith's "A Blueprint for Survival", B. Ward and R. Dubos' book "Only One Earth", E.F. Schumacher's "Small Is Beautiful", F. Schumacher's "A Guide for the Perplexed" (Du Pisani, 2006; Goldsmith, Allen, Allaby, Davoll, & Lawrence, 1972; Meadows, Meadows, Randers, & Behrens, 2018). In particular, it is possible to interpret "The Limits to Growth" report as the cornerstone of this period (Beder, 2013; Du Pisani, 2006; Kaplan, 1999; Meadows & Randers, 2012; Mebratu, 1998; Purvis et al., 2019). Then, in 1972, the first "Green Party" was founded in New Zealand, which had a great impact on the Western world until the 1990s (Downes, 2000).

In 1971, the "Man and the Biosphere Program" (MAB) shed light on the United Nations Stockholm Conference in 1972 (Bridgewater, 2016). From another perspective, the MAB Program is considered to be one of the first attempts to direct international scientific cooperation towards the intergovernmental environmental field (Ishwaran, 2012). Another international activity is the Ramsar Convention adopted in 1971. Turkey joined this convention in 1994 (Gardner & Davidson, 2011).

In conclusion, the studies, green party movement, and agreements published in the late 1960s created awareness in the world and paved the way for many political movements, international organizations, and congresses. At this point, the United Nations Stockholm Conference, World Conservation Strategy Report, Our Common Future (Brundtland) Report, Rio Conference, Habitat I Summit, Habitat II Summit, Johannesburg Summit, Kyoto Protocol, Rio +20 Summit, Agenda 2030, Habitat III, Copenhagen Mayors Consensus, Kyoto Protocol and Paris Agreement outputs and discussions, which are important milestones in the evolution of sustainability thinking, are important developments that need to be examined (Figure 2).

In this context, the Stockholm Conference, which brought the concept of "environmental rights" to the international agenda for the first time, took place in 1972 (UN, 2012). In the global dimension of sustainability, the Stockholm Conference has assumed a guiding role in protecting, improving, and preventing damage to the environment and promoting environmental protection (Grubb et al., 2019; UN, 1972). In this context, the conference marked a turning point for international environmental law, global climate and environmental policies, and the green movement (Bacon, 1975; Kaplan, 1999; Pallemaerts, 2014; Purvis, et al., 2019; UN, 1972).

Another important step, The World Conservation Strategy (WCS), was published in 1980. By addressing conservation and development as interdependent, it was the first influential document that bridged the relationship between environmental protection and development, which was discussed throughout the 1970s (IUCN et al., 1980; Robinson, 1993; Roe, 2008). Another important document on sustainability, "Our Common Future", was published in 1987 (UN, 1987). One of the most important impacts of the document, also known as the Brundtland Report, is

that it helped the concept of sustainable development to reach its modern definition (Pezzoli, 1997; Redclift, 2005; Serageldin, 1993; UN, 1987).

In 1992, the United Nations Conference on Environment and Development (UNCED) took place exactly 20 years after the Stockholm Conference (UN, 1992). The conference, also known as the Earth Summit, contributed to international environmental policies in two important ways: it was the highest attended meeting organized by the United Nations and it effectively raised issues such as technology, foreign trade, traffic, and energy policies (Kaplan, 1999; Pezzoli, 1997; Redclift, 2005; UN, 1992).

The United Nations Conference on Human Settlements II, hosted by Turkey in Istanbul in 1996, addressed two main objectives: "adequate housing for all" and "sustainable human settlements". In this direction, sector-based development interventions, determining the place of individuals in the city through democracy, strengthening local governments and participation were discussed (Cohen, 2016; Parnell, 2016; Tekeli, 1996; Tekeli, & Keleş, 2015; UN, 1996).

The 2002 World Summit on Sustainable Development aimed to evaluate Agenda 21, which was the outcome of the 1992 Rio Summit held ten years earlier. In this respect, it is also known as Rio+10 (Potschin & Haines-Young, 2006). The meeting aimed to create an action plan for the implementation of Agenda 21. However, due to the slow progress of the meeting and the lack of consensus on the goals, the intended result could not be achieved (Najam et al., 2002; UN, 2002).

Another sustainability summit, the United Nations Summit on Sustainable Development, was held in 2015. The Summit adopted "The 2030 Agenda for Sustainable

Development" consisting of 17 main goals and 169 sub-goals. Two months after this summit, the Paris Agreement was signed within the scope of the Paris Climate Change Conference (COP21) in 2015 and ratified by the Presidential Decree in Turkey in 2021 (RG, 2021; Turkish Ministry of Foreign Affairs, 2022; UN, 2015a). The shortcomings of the Agreement are that it is not legally binding and there is no mandatory amount for the targets (Rhodes, 2016; Savaresi, 2016; Schleussner, et al., 2016).

The UN Climate Change Conference, also known as COP28, was held in its most recent form in Dubai in 2023. At the conference, which Turkey also attended, a roadmap for transitioning away from fossil fuels was approved, a fund to reduce losses and damages was adopted, plans were made for the protection of the global food and water system, support steps for developing countries were discussed, and energy transformation was evaluated (Arora, 2024; Jiang, et al., 2024; UN News, 2023).

The Copenhagen Mayors' Consensus was held in 2018, and approaches to improve health and well-being, which are considered as one of the prerequisites for a sustainable society, in cities and urban areas were put forward. Within the framework of the consensus, urban design is addressed with an equitable, inclusive, and healthy city approach (World Health Organization [WHO], 2018).

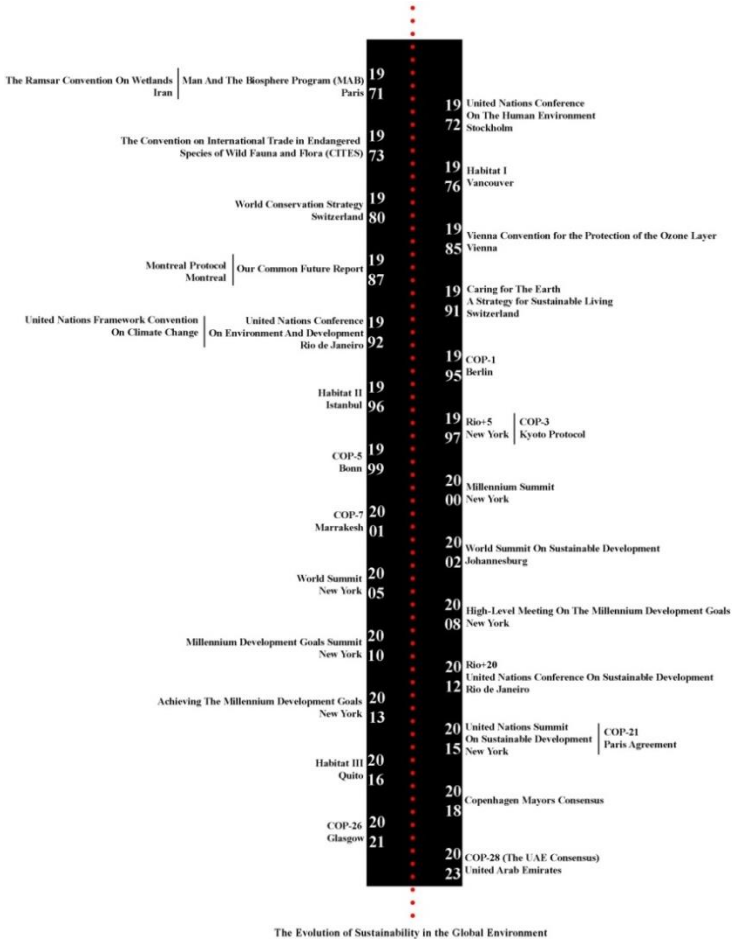


Figure 2. The evolution of sustainability in the global environment (Yıldırım, 2024; page 25)

The Kyoto Protocol was adopted in 1997 and Turkey became a party to it in 2009 (RG, 2009). The protocol was considered economically inefficient and politically unenforceable due to its exclusion of major developing countries, its strict targets despite the uncertainties related to climate change, its focus on carbon in consumption rather than production, the lack of technological innovations, the withdrawal of the United States

from the agreement in 2001, its limited scope and the lack of long-term commitments (Böhringer, 2003; Helm, 2008; McKibbin & Wilcoxen, 2002; Rosen, 2015).

Sustainability approaches have evolved in response to the global environmental challenges that have arisen. This process, in which spatial organization disciplines have developed intervention tools, has resulted in the creation of numerous strategies worldwide, although not all have been implemented. The legal regulations established during this global process are similarly observed in Turkey.

3. THE INFLUENCE OF SUSTAINABILITY CONCEPT DEVELOPMENT ON LEGAL PROCESSES IN TURKEY

Regulations on environmental protection in Turkey started in the Ottoman period. Especially the regulations established for the protection of green areas and water resources during the reigns of Sultan Mehmet the Conqueror, Sultan Suleiman the Magnificent, Selim II, and Abdulhamid II are the first important steps in this field. In addition to these, "Forest Regulation" in 1869 and "Ebniye Law" in 1882 were adopted (Özcan, 2006; Şengün, 2015).

From the proclamation of the Republic until the 1961 Constitution, environmental awareness and ecological sensitivity gained importance both in Turkey and in the world and an effective environmental policy was tried to be established (Çolakoğlu, 2010). In this process, Municipal Law No. 1580 and Public Hygiene Law No. 1593 were adopted. These laws set forth regulations on environmental cleanliness and human health. Assignments were made to special provincial and village

administrations, municipalities, and the Ministry of Health (Resmi Gazete [RG], 1930). To solve the problems associated with rapid urbanization, Zoning Law No. 6785 was adopted and municipalities were assigned to make zoning plans (RG, 1956; Şen, 1995). Following this step, the Ministry of Zoning and Settlement was established with Law No. 7116 for planned urbanization (Ministry of Environment and Urbanization [MoEU], 2022). Subsequently, Slum Law No. 775 was adopted in 1966 to prevent environmental degradation. In this way, it was aimed to prevent unplanned urbanization (RG, 1966). The 1961 Constitution of the Republic of Turkey included the relationship between human health and a clean environment. However, the right to the environment was considered within the scope of "right to health" (Çolakoğlu, 2010).

Until 1970, environmental regulations were carried out by the relevant institutions and organizations in a disorganized and discrete manner (Özdemir, 1988). After the 1972 Stockholm Conference, the environmental awareness that developed in the international arena started to find its place in Turkey (Altunbaş, 2003). For this reason, the "Coordination Board for Environmental Problems" was established in 1973 as the first independent organization related to the environment, and its name was changed to "Environment Coordination Board" in 1974 (MoEU, 2022). Following this step, the "Prime Ministry Environment Organization" was established in 1978. The establishment of this organization was aimed at ensuring integration among ministries and related institutions in the implementation of Turkey's national and international environmental policies. With a subsequent decision, it was elevated to the level of the Undersecretariat (MoEU, 2022; RG, 1978).

The 1982 Constitution of the Republic of Turkey directly included the right to environment and for the first time "environmental protection and development" was included in the Constitution. With this step, the need for an environmental legislation including implementation principles arose (Budak, 2000; Çolakoğlu, 2010; Demiral & Evin, 2014). For this reason, Environmental Law No. 2872 was adopted in 1983, and an approach covering present and future generations was included (RG, 1983). In 2006, Environmental Law No. 5491 defined the purpose of our national environmental policy (Keleş, 2023; RG, 2006). With this law, the public, local administrations, non-governmental organizations, and professional organizations were evaluated holistically. In addition, education planning was carried out to develop environmental awareness, and programs on the importance of the environment and the development of environmental awareness were broadcast on radio and television (Keleş, 2023; RG, 2006). In 2023, the Environmental Law was finalized (RG, 2023).

The concept of sustainability, which gained global acceptance in the late 1980s, was reflected in the Zoning Law No. 3194, which entered into force in 1985. Unlike the previous Zoning Law No. 6785, it set sustainable urbanization as an integrated goal, addressed all areas as a whole, and aimed to accelerate zoning processes by increasing the powers of local governments. However, due to Turkey's inability to fully follow global developments in the field of sustainable urban planning, the objectives were not fully achieved; therefore, inter-unit relations and supervision processes were reorganized (Kayahan, 2019).

Until the 1980s, institutions and organizations were able to operate in a limited way due to their powers, staff, and facilities, and a holistic public organization could not be fully

established (Şen, 1995; Şengün, 2015). Although the Prime Ministry Undersecretariat of Environment was transformed into the General Directorate of Environment in 1984 to reorganize relations, it was raised to the level of Undersecretariat in 1989 with Decree-Law No. 389. Subsequently, it was aimed to elevate environmental management to the level of a ministry, and the Ministry of Environment was established with the Decree Law No. 443 in 1991 (RG, 1991). Subsequently, the Undersecretariat of Environment was closed down by transferring its duties and authorities to the Ministry of Environment (MoEU, 2022; RG, 1991). The establishment of the Ministry of Environment can be considered as an important progress in terms of putting environmental policies on a firmer footing and improving conservation approaches.

In 2003, the Ministry of Environment and the Ministry of Forestry were merged. In this way, forest and environmental management was centralized. In addition, in 2007, the General Directorate of State Hydraulic Works joined the Ministry of Environment and Forestry. In 2011, Decree Law No. 636 established the Ministry of Environment, Forestry, and Urbanization, and one month later, a new Decree Law unbundled environmental management. Departments were separated between the Ministry of Forestry and Water and the Ministry of Environment and Urbanization (RG, 2011). The environmental wing of the Ministry of Environment and Forestry and the Ministry of Public Works and Settlement formed the Ministry of Environment and Urbanization. In 2021, with the Presidential Decree No. 85, it was renamed as the "Ministry of Environment, Urbanization and Climate Change" (MoEU, 2022).

Five-year development plans prepared by the State Planning Organization are another important issue to be considered in the evaluation of environmental policies in

Turkey. In 1960, with Law No. 91, the State Planning Organization was established and the planned progress of economic, social, and cultural development was aimed. After the effects of the 1972 Stockholm Conference, environmental problems were addressed for the first time with the Third Five-Year Development Plan covering 1973-1977 (Altunbaş, 2003; Şen, 1995). Until the Fifth Five-Year Development Plan, environmental problems were addressed through environmental health. With this plan, environmental policies started to be developed for the first time (Güleç & Sürmeli, 2015). With the effects of the 1992 Rio Conference, the Sixth, Seventh, and Eighth Five-Year Development Plans aimed to implement environmental policies by the principles adopted by the United Nations and the European Union (Altunbaş, 2003). In other development plans until 2024, the widespread use of smart technology and the principle of sustainable development were pursued as environmental policies (Çelikyay, 2021). In its current form, the Twelfth Development Plan for the years 2024-2028 was adopted by Law No. 1396. While defining the vision of the development plan, "an environmentally sensitive Turkey" was emphasized and the principles of sustainable development were taken as a basis (Presidency of the Republic of Turkey Strategy and Budget Directorate [SBB], 2023). Turkey is implementing regulations through legal documents that align with sustainability approaches and global developments.

4. CONCLUSION

In Turkey, there are many regulations on sustainable development and environmental policies both nationally and internationally. National regulations are determined by laws or regulations, while the nature of international treaties is finalized

by Article 90 of the 1982 Turkish Constitution. The "Crimes against the Environment" section of the Turkish Penal Code formulates the sanctions to be imposed in case of non-compliance with these laws. As for the implementation of these regulations, there are debates on purpose-rationality (Altunbaş, 2003; Keleş & Tunçer, 2022). Supporting educational tools plays an important key role in the development of environmental awareness. Again, for this purpose, non-governmental organizations, local governments, central government, and professional organizations with public institution status have important duties and participation is an important concept (Çolakoğlu, 2010; Kaplan, 1999; Keleş & Tunçer, 2022).

Considering the rationality of purpose in the international arena, it can be evaluated positively that Local Agenda 21 (LA21) practices had a significant impact on local governance and encouraged many local initiatives from the Rio Summit in 1992 to the Rio+20 Summit in 2012. However, it was not fully aligned with the ideal model and there was limited progress in participation (Barrutia, Echebarria, Paredes, Hartmann, & Apaolaza, 2015).

The Millennium Development Goals (MDGs) should also be considered when addressing goal rationality within the framework of conferences. It has been observed that progress on the MDG environmental goals is uneven across countries, regions, and issues, with European countries performing better on the Rio goals, while countries in the Middle East and North Africa perform less well (Hsu, Lloyd, & Emerson, 2013). This can be attributed to the lack of data access, timeliness, and reliability in MDG implementation reports, especially in less developed countries (Attaran, 2006; Dar & Khan, 2011; Easterly, 2009; Flood, 1997;), the presentation of goals as general objectives rather than concrete policy changes, the

absence of economic, social and environmental aspects in the goals (Fukuda-Parr, 2006; Waage et al, 2010), short-term plans interfering with long-term goals (Klopp & Petretta, 2017; Fehling, Nelson, & Venkatapuram, 2013; Maxwell, 2003), and rapid solutions leading to uncoordination (Bond, 2006; Van Norren, 2012; Waage et al., 2010).

These developments highlight the discrepancy between objectives and actual practices. This situation stands out as a significant barrier, not just on a national level but in the international arena as well. Additionally, all segments of society need to be involved in the process, each fulfilling their independent roles and responsibilities while cooperating socially. Establishing a governance framework will enhance participation, promote peace, and ensure equality as well as environmental justice—issues that are widely discussed. Improving education on a global scale, raising environmental awareness, and ensuring that each country does its part are common solutions to the process. Furthermore, it should be assessed that the objectives and targets can be achieved if the strategies outlined in the policies and the legal documents created for their enforcement are applied at the local level. In this context, it is imperative to examine the role of local governments in the achievement of sustainability objectives and to enhance their operational practices.

5. REFERENCES

Altunbaş, D. (2003). Uluslararası sürdürülebilir kalkınma ekseninde Türkiye'deki kurumsal değişimlere bir bakış. *Yönetim Bilimleri Dergisi, 1*(1-2), pp. 103-118.

Altunbaş, D. (2003). Uluslararası sürdürülebilir kalkınma ekseninde Türkiye'deki kurumsal değişimlere bir bakış. *Yönetim Bilimleri Dergisi, 1*(1-2), pp. 103-118.

Arora, P. (2024). COP28: ambitions, realities, and future. *Environmental Sustainability 7*, pp. 107–113 https://doi.org/10.1007/s42398-024-00304-0

Attaran, A. (2006). Correction: an immeasurable crisis? A criticism of the millennium development goals and why they cannot be measured. *PLOS Medicine, 3*(5), pp. 224. https://doi.org/10.1371/journal.pmed.0020318

Bacon, T. C. (1975). The Role of The United Nations Environment Program (UNEP) in the Development of International Environmental Law. *Canadian Yearbook of International Law/Annuaire canadien de droit international, 12*, pp. 255-266. https://doi.org/10.1017/S0069005800012583

Barrutia, J. M., Echebarria, C., Paredes, M. R., Hartmann, P., & Apaolaza, V. (2015). From Rio to Rio+20: twenty years of participatory, long term oriented and monitored local planning? *Journal of Cleaner Production, 106*, pp. 594–607. https://doi.org/10.1016/j.jclepro.2014.12.085

Beder, S. (2013). *Environmental principles and policies: an interdisciplinary introduction.* Routledge. https://doi.org/10.4324/9781315065908

Bibri, S. E., & Krogstie, J. (2017). Smart sustainable cities of the future: An extensive interdisciplinary literature review. *Sustainable cities and society*, 31, pp. 183-212. https://doi.org/10.1016/j.scs.2017.02.016

Binswanger, H. C., Bonus, H., & Timmermann, M. (1981). *Wirtschaft und Umwelt: Möglichkeiten einer ökologieverträglichen Wirtschaftspolitik*. pp. 242. Stuttgart: Verlag Kohlhammer. From Ayşegül Kaplan (1997), Küresel Çevre Sorunları ve Politikaları. *Mülkiyeliler Birliği Vakfı Yayınları Tezler Dizisi, 18*, Ankara.

Bond, P. (2006). Global governance campaigning and MDGs: from top-down to bottom-up anti-poverty work. *Third World Quarterly*, *27*(2), pp. 339–354. https://doi.org/10.1080/01436590500432622

Böhringer, C. (2003). The Kyoto protocol: a review and perspectives. *Oxford Review of Economic Policy, 19*(3), pp. 451-466. https://doi.org/10.1093/oxrep/19.3.451

Bridgewater, P. (2016). The Man and Biosphere programme of UNESCO: Rambunctious child of the sixties, but was the promise fulfilled?. *Current Opinion in Environmental Sustainability, 19*, pp. 1-6. https://doi.org/10.1016/j.cosust.2015.08.009

Budak, S. (2000). Avrupa Birliği ve Türk çevre politikası. *Büke Yayınları,* pp. 17-362.

Carleton, T. A., & Hsiang, S. M. (2016). Social and economic impacts of climate. *Science*, *353*(6304), aad9837. https://doi.org/10.1126/science.aad9837

Carson, R. (1962). *Silent Spring.* Houghton Mifflin.

Chadwick, E. (1843). Report on the sanitary condition of the labouring population of Great Britain :A supplementary report on the results of a special inquiry into the practice of interment in towns. Made at the request of Her Majesty's principal Secretary of State for the Home Department. London: Printed by W. Clowes and Sons, for H.M.S.O.

Cohen, M. A. (2016). From Habitat II to Pachamama: a growing agenda and diminishing expectations for Habitat III. *Environment and Urbanization, 28*(1), pp. 35-48. https://doi.org/10.1177/0956247815620978

Çelikyay, H. H. (2021). Türkiye'de Çevre Politikaları: Kalkınma Planları Üzerinden Bir İnceleme. *İktisadi İdari Ve Siyasal Araştırmalar Dergisi, 6*(15), pp. 185-205. https://doi.org/10.25204/iktisad.839408

Çevre ve Şehircilik Bakanlığı, ÇŞB. (2024, May 30). Çevre, Şehircilik ve İklim Değişikliği Bakanlığı'nın tarihçesi. (2022). https://csb.gov.tr/tarihcemiz-i-7012

Çolakoğlu, E. (2010). Haklar söyleminde çevre eğitiminin yeri ve Türkiye'de çevre eğitiminin anayasal dayanakları. *Tbb Dergisi, 88*(2), pp. 151-171.

Dar, O. A., & Khan, M. S. (2011). Millennium development goals and the water target: details, definitions and debate. *Tropical Medicine & International Health, 16*(5), pp. 540–544. https://doi.org/10.1111/j.1365-3156.2011.02736.x

Demiral, B., & Evin, H. (2014). Türkiye'de çevre politikalarının gelişiminin çevresel etki değerlemesi yönetmeliği üzerinden değerlendirilmesi. *Uluslararası Çevre ve Ahlak Sempozyumu, Adıyaman, Türkiye*, pp. 37-48.

Downes, D. (2000). The New Zealand environmental movement and the politics of inclusion. *Australian Journal of Political Science*, *35*(3), pp. 471-491. https://doi.org/10.1080/713649347

Du Pisani, J. A. (2006). Sustainable development–historical roots of the concept. *Environmental sciences, 3*(2), pp. 83-96. https://doi.org/10.1080/15693430600688831

Easterly, W. (2009). How the millennium development goals are unfair to Africa. *World Development, 37*(1), pp 26–35. https://doi.org/10.1016/j.worlddev.2008.02.009

Ehrlich, P. R. (1968). *The population bomb*. New York: Ballantine Books.

Evenson, R. E., & Gollin, D. (2003). Assessing the impact of the Green Revolution, 1960 to 2000. *Science, 300*(5620), pp. 758-762. https://doi.org/10.1126/science.1078710

Fehling, M., Nelson, B. D., & Venkatapuram, S. (2013). Limitations of the millennium development goals: a literature review. *Global Public Health, 8*(10), pp. 1109–1122. https://doi.org/10.1080/17441692.2013.845676

Flood, J. (1997). Urban and housing indicators. *Urban studies, 34*(10), pp. 1635-1665. https://doi.org/10.1080/0042098975385

Fukuda-Parr, S. (2006). Millennium Development Goal 8: *Indicators for International Human Rights Obligations? Human Rights Quarterly 28*(4), pp. 966-997. https://doi.org/10.1353/hrq.2006.0046

Gallion, A. B. (1950). *The Urban Pattern: City Planning and Design.* New York: D.van Nostrand Co.

Gardner, R. C., & Davidson, N. C. (2011). The ramsar convention. In LePage, B. (eds) *Wetlands: Integrating multidisciplinary concepts,* pp.189-203. Dordrecht: Springer. https://doi.org/10.1007/978-94-007-0551-7_11

Gazete, R. (1930). 1580 Sayılı Belediye Kanunu. (14.04.1930 Sayı: 1471).

Gazete, R. (1930). 1593 Sayılı Umumi hıfzıssıhha kanunu. (06.05.1930 Sayı: 1489).

Gazete, R. (1956). 6785 Sayılı İmar Kanunu. (16.07.1956 Sayı: 9359).

Gazete, R. (1966). 775 Sayılı Gecekondu Kanunu. (30.07.1966 Sayı: 12362).

Gazete, R. (1978). 16041 Sayılı Bakanlar Kurulu Kararları. (12.08.1978, Sayı: 16375).

Gazete, R. (1983). 2872 Sayılı Çevre Kanunu. (09.08.1983 Sayı: 18132).

Gazete, R. (1991). 443 Sayılı Kanun Hükmünde Kararnameler. (21.08.1991, Sayı: 20976).

Gazete, R. (2006). 5491 Sayılı Çevre Kanunu. (13.05.2006, Sayı: 26167).

Gazete, R. (2009). 14979 Sayılı Milletlerarası Sözleşme. (13.05.2009, Sayı: 27227).

Gazete, R. (2011). 636 Sayılı Kanun Hükmünde Kararnameler. (08.06.2011, Sayı: 27958).

Gazete, R. (2011). 644-645 Sayılı Kanun Hükmünde Kararnameler. (04.07.2011, Sayı: 27984).

Gazete, R. (2021). 4618 Sayılı Milletlerarası Antlaşma. (07.10.2021, Sayı: 31621).

Gazete, R. (2023). 2872 Sayılı Çevre Kanunu Uyarınca Alınacak Geri Kazanım Katılım Payı Tutarlarına İlişkin Tebliğ. (29.12.2023, Sayı: 32414).

Goldsmith, E., Allen, R., Allaby, M., Davoll, J., & Lawrence, S. (1972). *A blueprint for survival.* The Ecologist.

Grubb, M., Koch, M., Thomson, K., Sullivan, F., & Munson, A. (2019). *The'Earth Summit'Agreements: A Guide and Assessment: An Analysis of the Rio'92 UN Conference on Environment and Development.* (1st ed.). London: Routledge. https://doi.org/10.4324/9780429273964

Güleç, S. S., & Sürmeli, İ. (2015). Hükümet programları ve kalkınma planları ekseninde çevre politikası analizi. *Yasama Dergisi*, (30), pp. 22-43

Haines, A., & Patz, J. A. (2004). Health effects of climate change. *Jama*, *291*(1), pp. 99-103. https://doi.org/10.1001/jama.291.1.99

Hall, P., Hall, P., & Tewdwr-Jones, M. (2019). *Urban and Regional Planning*. (6th ed.). London: Routledge. https://doi.org/10.4324/9781351261883

Helm, D. (2008). Climate-change policy: why has so little been achieved?. *Oxford Review of Economic Policy*, *24*(2), pp. 211-238. https://doi.org/10.1093/oxrep/grn014

Hsu, A., Lloyd, A., & Emerson, J. W. (2013). What progress have we made since Rio? Results from the 2012 environmental performance index (epi) and pilot trend epi. *Environmental Science & Policy*, *33*, pp. 171-185. https://doi.org/10.1016/j.envsci.2013.05.011

International Union for the Conservation of Nature. (2024, May 30). World conservation strategy: Living resource conservation for sustainable development. *World Wildlife Fund, 1*. Switzerland. (1980). https://portals.iucn.org/library/efiles/documents/wcs-004.pdf

Ishwaran, N. (2012). Science in intergovernmental environmental relations: 40 years of UNESCO's Man and the Biosphere (MAB) Programme and its future. *Environmental Development, 1*(1), 91-101. https://doi.org/10.1016/j.envdev.2011.11.001

Islam, N., & Winkel, J. (2017). Climate change and social inequality. *UN Department of Economic and Social Affairs (DESA) Working Papers, 152.* https://doi.org/10.18356/2c62335d-en

IUCN. (1988). Bulletin: 40 Years in conservation. *IUCN*, *19*(7-12).

Jiang, T., et al. (2024). COP 28: Challenge of coping with climate crisis. *The Innovation, 5*(1). https://doi.org/10.1016/j.xinn.2023.100559

Kaplan, A. (1999). *Küresel çevre sorunları ve politikaları.* Ankara: Mülkiyeliler Birliği Vakfı Yayınları Tezler Dizisi.

Kayahan, B. (2019). *Sürdürülebilir gelişme bağlamında kentsel proje imar planı ilişkisi, Şile (İstanbul) örneği* [Master's degree thesis]. Mimar Sinan Güzel Sanatlar Üniversitesi.

Keleş, R. & Tunçer, M. (2022, April 22). Kapadokya sürdürülebilirlik konuşmaları: Türkiye'de çevre politikaları. [Video]. YouTube.

https://www.youtube.com/watch?v=Pm0ZWIliLsA&ab_channel=Kapadokya%C3%9Cniversitesi

Keleş, R. (2023). Dünyada ve Türkiye'de çevre politikaları ve sürdürülebilir kalkınma. *Çevre Şehir ve İklim Dergisi, 2*(3), pp. 24-30.

Klopp, J. M., & Petretta, D. L. (2017). The urban sustainable development goal: Indicators, complexity and the politics of measuring cities. *Cities, 63,* pp. 92–97. https://doi.org/10.1016/j.cities.2016.12.019

Koch, T. (2004). The Map as Intent: Variations on the Theme of John Snow. *Cartographica: The International Journal for Geographic Information and Geovisualization, 39*(4), pp. 1–14. https://doi.org/10.3138/b123-8124-4390-5792

Levy, B. S., & Patz, J. A. (2015). Climate change, human rights, and social justice. *Annals of global health, 81*(3), pp. 310-322. https://doi.org/10.1016/j.aogh.2015.08.008

Maxwell, S. (2003). Heaven or hubris: reflections on the new 'new poverty agenda'. *Development Policy Review, 21*(1), pp. 5-25. https://doi.org/10.1111/1467-7679.00196

McKibbin, W. J., & Wilcoxen, P. J. (2002). The role of economics in climate change policy. *Journal of economic perspectives, 16*(2), pp. 107-129. https://doi.org/10.1257/0895330027283

Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (2018). The limits to growth. In *Green planet blues* (5th ed., pp. 25-29). London: Routledge. https://doi.org/10.4324/9780429493744-3

Meadows, D., & Randers, J. (2012). *The limits to growth: the 30-year update*. (1st ed.). London: Routledge. https://doi.org/10.4324/9781849775861

Mebratu, D. (1998). Sustainability and sustainable development. *Environmental Impact Assessment Review, 18*(6), pp. 493–520. https://doi.org/10.1016/s0195-9255(98)00019-5

Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. *Cogent Social Sciences, 5*(1). https://doi.org/10.1080/23311886.2019.1653531

Najam, A., & Cleveland, C. J. (2005). Energy and sustainable development at global environmental summits: an evolving agenda. In *The World Summit on Sustainable Development: The Johannesburg Conference* (pp. 113-134). Dordrecht: Springer. https://doi.org/10.1007/1-4020-3653-1_5

Najam, A., Poling, J. M., Yamagishi, N., Straub, D. G., Sarno, J., De Ritter, S. M., & Kim, E. M. (2002). From Rio to Johannesburg progress and prospects. *Environment: Science and policy for sustainable development, 44*(7), pp. 26–38. https://doi.org/10.1080/00139150209605804

Özcan, K. (2006). Tanzimat'ın kent reformları: Türk imar sisteminin kuruluş sürecinde erken plânlama deneyimleri (1839-1908). *Osmanlı Bilimi Araştırmaları, 7*(2), pp. 149-180.

Özdemir, Ş. (1988). *Türkiye'de toplumsal değişme ve çevre sorunlarına duyarlılık.* Palme Yayınları.

Pallemaerts, M. (2014). International environmental law from Stockholm to Rio: back to the future?. In *Greening*

International Law (pp. 1-19). London: Routledge. https://doi.org/10.4324/9781315070353

Parkes, E. (2013). Mode of Communication of Cholera. By John Snow, MD. (2nd ed.). London, 1855, pp. 162. *International Journal of Epidemiology, 42*(6), pp. 1543–1552. https://doi.org/10.1093/ije/dyt193

Parnell, S. (2016). Defining a global urban development agenda. *World development, 78*, pp. 529-540. https://doi.org/10.1016/j.worlddev.2015.10.028

Parry, M., et al. (2007). *Climate Change 2007: Impacts, Adaptation and Vulnerability.* New York: Cambridge University Press.

Peterson, J. A. (2003). *The birth of city planning in the United States, 1840–1917.* Baltimore: Johns Hopkins University Press.

Pezzoli, K. (1997). Sustainable Development: A Transdisciplinary Overview of the Literature. *Journal of Environmental Planning and Management, 40*(5), pp. 549–574. https://doi.org/10.1080/09640569711949

Pingali, P. L. (2012). Green revolution: impacts, limits, and the path ahead. *Proceedings of the national academy of sciences, 109*(31), pp. 12302-12308. https://doi.org/10.1073/pnas.0912953109

Potschin, M., & Haines-Young, R. (2006). "Rio+ 10", sustainability science *and Landscape Ecology. Landscape and urban planning, 75*(3-4), pp. 162-174. https://doi.org/10.1016/j.landurbplan.2005.03.005

Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins.

Sustainability science, 14, pp. 681–695. https://doi.org/10.1007/s11625-018-0627-5

Redclift, M. (2005). Sustainable development (1987-2005): an oxymoron comes of age. *Sustainable Development, 13*(4), pp. 212–227. https://doi.org/10.1002/sd.281

Rhodes, C. J. (2016). The 2015 Paris climate change conference: COP21. *Science progress, 99*(1), pp. 97-104. https://doi.org/10.3184/003685016X14528569315192

Robinson, J. G. (1993). The limits to caring: sustainable living and the loss of biodiversity.. *Conservation biology, 7*(1), pp. 20–28. https://doi.org/10.1046/j.1523-1739.1993.07010020.x

Robinson, J. G. (1993). The limits to caring: sustainable living and the loss of biodiversity.. *Conservation biology, 7*(1), pp. 20–28. https://doi.org/10.1046/j.1523-1739.1993.07010020.x

Roe, D. (2008). The origins and evolution of the conservation-poverty debate: a review of key literature, events and policy processes. *Oryx, 42*(4), pp. 491–503. https://doi.org/10.1017/s0030605308002032

Rosen, A. M. (2015). The wrong solution at the right time: The failure of the kyoto protocol on climate change. *Politics & Policy, 43*(1), pp. 30-58. https://doi.org/10.1111/polp.12105

Ross, C. (2015). Tropical nature as global patrimoine: Imperialism and international nature protection in the early twentieth century. *Past & Present, 226*, pp. 214-239. https://doi.org/10.1093/pastj/gtu019

Savaresi, A. (2016). The Paris Agreement: a new beginning? *Journal of Energy & Natural Resources Law*, *34*(1), pp. 16–26. https://doi.org/10.1080/02646811.2016.1133983

Schaefer, A., & Crane, A. (2005). Addressing sustainability and consumption. *Journal of Macromarketing*, *25*(1), pp. 76–92. https://doi.org/10.1177/0276146705274987

Schleussner, CF., et al. (2016). Science and policy characteristics of the Paris Agreement temperature goal. *Nature Climate Change 6*, pp. 827–835. https://doi.org/10.1038/nclimate3096

Serageldin, I. (1993). Making development sustainable. *Finance and development*, *30*(4), pp. 6-10

Snow, J. (1849). *On the mode of communication of cholera.* London: John Churchill.

Şen, E. (1995). Çevrenin korunmasında Türkiye'deki örgütlenme ve bu örgütlerin görevleri ile yetkileri. *İstanbul Üniversitesi Siyasal Bilgiler Fakültesi Dergisi,* (10).

Şen, E. (1995). Çevrenin korunmasında Türkiye'deki örgütlenme ve bu örgütlerin görevleri ile yetkileri. *İstanbul Üniversitesi Siyasal Bilgiler Fakültesi Dergisi,* (10).

Şengün, H. (2015). Türkiye'de çevre yönetimi ve çevre ve Şehircilik Bakanlığının uygulamaları. *Strategic Public Management Journal*, *1*(1), pp. 109-130. https://doi.org/10.25069/spmj.289946

Şengün, H. (2015). Türkiye'de çevre yönetimi ve çevre ve Şehircilik Bakanlığının uygulamaları. *Strategic Public Management Journal*, *1*(1), pp. 109-130. https://doi.org/10.25069/spmj.289946

T.C. Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı. (2024, June 6). On ikinci kalkınma planı. (2022). https://www.sbb.gov.tr/wp-content/uploads/2023/12/On-Ikinci-Kalkinma-Plani_2024-2028_11122023.pdf

T.C. Dışişleri Bakanlığı (2024, June 6). Paris anlaşması. https://www.mfa.gov.tr/paris-anlasmasi.tr.mfa (2022).

Talbot, L. M. (1980). The World's Conservation Strategy. *Environmental conservation, 7*(4), pp. 259–268. https://doi.org/10.1017/s0376892900007955

Tekeli, İ. (1996). *Habitat II konferansı yazıları.* TC Başbakanlık Toplu Konut İdaresi Başkanlığı.

Tekeli, İ., & Keleş, R. (2015). Katılımcılık ve Gerçekçilik Sorgulamaları Arasında Habitat III Türkiye Raporu. *Mimarlık Dergisi,* (383).

United Nations. (2024, May 30). *COP28 ends with call to 'transition away' from fossil fuels*. UN News. https://news.un.org/en/story/2023/12/1144742

United Nations. (2024, May 30). Our common future: report of the world commission on environment and development. Geneva. (1987). http://www.un-documents.net/ocf-ov.htm

United Nations. (2024, May 30). Paris Agreement. Paris. (2015a). https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf

United Nations. (2024, May 30). Report of the United Nations conference on the human environment. Stockholm. (1972). https://undocs.org/en/A/CONF.48/14/Rev.1

United Nations. (2024, May 30). United Nations conference on environment and development. Rio de Janeiro. (1992). https://undocs.org/en/A/CONF.151/26/Rev.1(vol.I)

United Nations. (2024, May 30). United Nations conference on human settlements, Habitat II. İstanbul. (1996). https://undocs.org/en/A/CONF.165/14

United Nations. (2024, May 30). World summit on sustainable development. Johannesburg. (2002). https://undocs.org/en/A/CONF.199/20

Van Norren, D. E. (2012). The Wheel of Development: the Millennium Development Goals as a communication and development tool. *Third World Quarterly, 33*(5), pp. 825–836. https://doi.org/10.1080/01436597.2012.684499

Waage, J. et al., (2010). The Millennium Development Goals: a cross-sectoral analysis and principles for goal setting after 2015. *The lancet, 376*(9745), pp. 991-1023. https://doi.org/10.1016/S0140-6736(10)61196-8

World Health Organization. (2024, May 30). *Copenhagen Consensus of Mayors. Healthier and happier cities for all.* WHO. https://www.who.int/europe/publications/m/item/copenhagen-consensus-of-mayors.-healthier-and-happier-cities-for-all

Yıldırım, F. İ. (2024). *Determination Of Sustainable Neighborhood Criteria With Analytic Hierarchy Process (AHP) To Create A Base For A Local Certification System.* [Master's degree thesis]. Dokuz Eylül Üniversitesi.

KAMUSAL ALANLARDA ALTERNATİF BİR YAKLAŞIM: OYUNCU ŞEHİRLER

Büşra BEGEN OKAY[1]

1. GİRİŞ

Oyun kavramı, günlük yaşam rutinlerine dinamizm katmayı hedefleyen, kentsel planlama ve kamusal alan tasarımında alternatif bir yaklaşım olarak ortaya çıkmıştır. İlk olarak çocuklara yönelik bir etkinlik olarak görülse de, günümüzde oyun, tüm yaş gruplarını kapsayacak şekilde genişlemiş ve farklı boyutlar kazanmıştır. Oyun yalnızca bir eğlence biçimi değil, aynı zamanda bireyler arasında sosyal bağları güçlendiren, mekânsal eşitliği teşvik eden ve fiziksel ile psikolojik sağlık üzerinde olumlu etkiler yaratan bir araçtır (Sutton-Smith, 2001; Stevens, 2007). Ayrıca, oyun kavramının kentsel mekânlara entegrasyonu, mekânların daha kapsayıcı, etkileşimli ve yaratıcı bir şekilde yeniden düşünülmesini sağlamaktadır.

Oyuncu şehirler yakaşımı, bu yaklaşımı bir adım öteye taşıyarak, şehirlerin sosyal bütünleşmeyi artırmak, bireylerin katılımını teşvik etmek ve sürdürülebilir kentsel gelişmeyi desteklemek için bir tasarım aracı olarak kullanılmasını önermektedir (De Lange, 2015). Bu yaklaşım, dijital teknolojilerle ve fiziksel mekân düzenlemeleriyle desteklenerek, bireylerin şehirle olan ilişkilerini yeniden tanımlama potansiyeline sahiptir.

[1] Arş. Gör., Kırklareli Üniversitesi, Mimarlık Fakültesi, Şehir ve Bölge Planlama Bölümü, busrabegen@klu.edu.tr, ORCID: 0000-0003-3951-7130

2. OYUNUN KAVRAMSAL TEMELLERİ

Johan Huizinga, *Homo Ludens* (1998/1938) adlı eserinde oyunu biyolojik ve fizyolojik işlevlerin ötesine geçen sosyokültürel bir fenomen olarak tanımlamıştır. Huizinga'ya göre oyun, özgür, gönüllü, günlük yaşamdan farklı ve zaman-mekân açısından sınırlı bir etkinliktir. Ayrıca, oyunun kültürden daha eski olduğu ve kültürün gelişiminde temel bir rol oynadığı belirtilmiştir (Huizinga, 1998). Bu yaklaşım, oyunun yalnızca bir eğlence aracı değil, aynı zamanda bireylerin sosyal bağlarını güçlendiren, toplumsal düzeni yeniden üreten bir araç olduğunu gösterir.

Roger Caillois (2001), oyunun kurallara dayalı ve belirsizlik çerçevesinde şekillendiğini vurgular. Ona göre oyun, doğası gereği üretken olmayan ancak bireylere eğlence ve özgürlük sunan bir etkinliktir. Caillois, oyunları dört temel türe ayırarak kapsamlı bir sınıflandırma sunmuştur: **Agon** (rekabet), **Alea** (şans), **Mimicry** (taklit) ve **Ilinx** (baş dönmesi). Bu kategoriler, farklı türdeki oyunların sosyal ve kültürel bağlamlardaki işlevlerini anlamak için önemli bir çerçeve sunar ve oyuncu şehir tasarımlarına ilham kaynağı oluşturur.

Stevens (2007), oyunun kentsel mekânlarla etkileşimini inceleyerek, oyun eylemlerinin bireylerin monoton yaşam pratiklerinden kaçışını sağladığını ve şehirleri daha yaşanabilir kıldığını savunur. Ayrıca, oyun kavramının yalnızca çocuklara özgü olmadığını, her yaştan birey için katılımı teşvik eden bir araç olduğunu vurgular. Stevens, bu bağlamda, kamusal alanların oyunlaştırılması yoluyla bireyler arasında spontane etkileşimlerin artırılabileceğini ve şehirlerin dinamik birer yaşam alanına dönüşebileceğini öne sürmüştür. Bu görüş, oyuncu şehirler paradigmasının geliştirilmesinde temel bir dayanak oluşturmaktadır (Fonseca et al., 2018; Nijholt, 2017).

3. OYUNCU ŞEHİRLER YAKLAŞIMI

Oyuncu şehir kavramının literatürdeki yeri irdelendiğinde, 1969 yılında Hollanda'da Eventstructure Research Group (ERG) isimli grubun bir gecede kurguladıkları Pnetube Projesi oyuncu şehir kavramına arka plan oluşturacak örneklerden biri olarak karşımıza çıkmaktadır. Amsterdam'da yaşayanlar sabah uyandıklarında Fredericksplein Meydanı'nda 30 metre uzunluğunda, solucan şeklinde tasarlanmış bir oyuncakla karşılaşmışlardır. Proje, 3-4 gün boyunca üzerinde, içerisinde ve etrafında her yaş grubundan insanın oyunlar oynamasına imkân sağlamıştır. Projeyi yapan ERG Group, Hollanda'lı sanatçı Constant Nieuwenhuys ve 1957 ile 1972 yılları arasında Avrupa'da faaliyet gösteren, avangart sanatçı, entelektüel, siyaset teorisyeni ve mimarlardan oluşan Situationists (Durumcular) grubundan etkilenmektedir (Battle, 2018). Marksist ideolojiye sahip olan Situationist'ler, metalar etrafında dönen faaliyetlerin egemenliğini reddederek şehrin ciddi niyetiyle alay etmeyi hedeflemektedir. Kendilerini, şakacı görünümün ardında, Situationist'ler dünyayı gerçekten değiştirme, sermaye ve tüketimcilik takıntısına hapsolmuş bir dünyayı çözmek için hırslı bir arzuya sahip olarak tanımlamaktadırlar (Debord, 1957). Situationist'lerin bu yaklaşımı, modern şehrin deneyimsel doğasını can sıkıntısından bir oyuna dönüştürme ve işlevselciliği reddederek modern estetik deneyimi yeniden yapılandırma olarak nitelenmektedir (Battle, 2018).

Digital Games Research Association 2020 Conference çağrı metninde bahsedildiği gibi oyun ve şehir kavramları, şehirde oynama, şehirle oynama ve şehir için oynama şeklinde başlıklara ayrılabilmektedir. Şehirde oynama, şehirlerde oyun alanını kurgulama olarak tanımlanmaktadır. Şehirle oynama, oyun ve eğlenceyi şehrin dokusuna dahil etme ve son olarak şehir için oynama kavramı ise altyapı bakımından sosyal ve

çevresel, kentsel sorunları ele almak için oyun ve oyunlaştırmayı kullanma olarak tanımlanmaktadır (DIGRA, 2020).

Oyuncu Şehirler kavramı, kentsel mekânları oyunla yeniden şekillendirme fikrine dayanır. De Lange (2015), şehirlerin oyun bağlamında beş farklı şekilde ele alınabileceğini belirtmektedir:

Eğlence Merkezi Olarak Şehir: Şehirler, topluluk etkinlikleri ve sosyal oyunlar için doğal bir merkezdir. Bu yaklaşım, bireylerin sosyal bağlarını güçlendiren ve topluluk etkileşimini artıran bir yapıyı desteklemektedir (Oldenburg, 2001; Sharpe & Glover, 2020).

Günlük Tiyatro Olarak Şehir: Şehir yaşamı, bireylerin spontan etkileşimlerde bulunduğu ve günlük rutinlerden kaçış sağladığı bir sahneye dönüşmektedir. Bu görüş, kamusal alanların bireylerin yaratıcılığını teşvik eden dinamik mekânlara dönüştüğünü öne sürmektedir (Stevens, 2007; Sutton-Smith, 2001).

Vatandaş Eğitim Alanı Olarak Şehir: Oyun, öğrenmeyi ve sosyal bağları teşvik eden bir eğitim aracı olarak kullanılabilir. Oyuncu yaklaşımların topluluk katılımını artırarak bireylerin şehirle olan ilişkilerini geliştirdiği vurgulanmaktadır (Fonseca et al.,2018).

Başkaldıran Oyun Alanı Olarak Şehir: Oyun, mevcut kentsel güç yapılarına meydan okur ve bireylerin "şehir hakkı" iddiasını güçlendirir. Bu bağlamda oyun, yalnızca bir eğlence aracı değil, aynı zamanda bir toplumsal dönüşüm aracı olarak görülmektedir (Debord, 1957; De Lange, 2015).

Kentsel Simülasyon: Dijital oyunlaştırma araçları, kentsel tasarım süreçlerinde yaratıcı çözümler sunar. Dijital teknolojiler, şehirlerin daha erişilebilir ve kullanıcı dostu hale

getirilmesinde kritik bir rol oynamaktadır (Nijholt, 2017; Edirisinghe et al., 2016).

Bu bağlamda, oyuncu şehirler kavramı, bireylerin şehirle etkileşimini artıran ve onların yaratıcılığını destekleyen kentsel bir yaklaşım olarak ortaya çıkmıştır. Oyunlaştırılmış şehirler, bireylerin hem fiziksel hem de duygusal bağlarını güçlendirerek kamusal alanların daha verimli kullanılmasına olanak tanımaktadır.

3.1. Oyuncu Şehirlerin Tasarım İlkeleri

Oyuncu şehirler tasarlanırken belirli ilkeler göz önünde bulundurulmalıdır:

Kapsayıcılık: Tüm yaş grupları ve demografik özelliklerden bireylerin katılımını teşvik eden mekânlar yaratmak amaçlanmalıdır (Fonseca et al., 2018; Glas et al., 2019).

Etkileşim: Bireyler arasında sosyal bağları güçlendiren ve fiziksel aktiviteyi teşvik eden oyun mekânları sağlamak amaçlanmalıdır. Böylece oyun yalnızca bireysel değil, aynı zamanda toplumsal faydalar sunabilir (Sharpe & Glover, 2020; Sutton-Smith, 2001).

Sürdürülebilirlik: Oyun alanlarının çevre dostu ve ekonomik açıdan sürdürülebilir olması sağlanmalıdır. Sürdürülebilir oyun mekânları, hem çevreye zarar vermeden hem de topluluk ihtiyaçlarına cevap verebilir (Nijholt, 2017; Edirisinghe et al., 2016).

Esneklik: Geçici ve değişken tasarımlar, kullanıcıların mekânlarla farklı şekillerde etkileşimde bulunmasına olanak tanımaktadır. Özellikle dijital oyunlaştırma araçları, esnek

mekân tasarımına katkı sunmaktadır (De Lange, 2015; Glas et al., 2019).

Bu tasarım ilkeleri, şehirlerin yalnızca birer yaşam alanı değil, aynı zamanda bireylerin yaratıcı ve etkileşimli deneyimler yaşayabileceği mekânlar haline gelmesine katkı sunmaktadır.

3.2. Uygulama Örnekleri

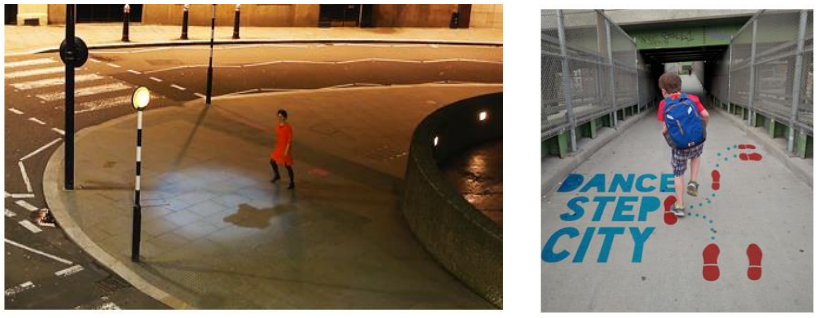
Humming Wall ve Musical Bench

2014 yılında Danimarka'nın Aalborg kentinde gerçekleştirilen bu proje, geçici bir sanat objesi olarak tasarlanmanın yanı sıra, rüzgârdan koruyucu bir oturma alanı ve titreşim ile yankı yoluyla müzik yapılmasına imkân sağlayan bir yapı olarak dikkat çekmiştir. Projenin amacı, insanlar arası etkileşimi artırmak ve kolektif bir deneyim yaratmaktır. Halkın ilgisini çeken tasarım, bireylerin müzik üretimi yoluyla sosyalleştiği bir ortam oluşturmuştur. Aynı anda birden fazla kişinin tasarımı kullanarak müzik yapabilmesi, kolektif bir müzik yaratımına olanak tanımış ve katılımcılar arasında güçlü bir bağ kurulmasını sağlamıştır. Bu proje, sanatsal yaratıcılığı toplumsal etkileşimle birleştiren çarpıcı bir örnek sunmaktadır (Leonardo Electronic Almanac, 2014). 2016 yılında Amerika Birleşik Devletleri'nin Florida eyaletinde, Lauderdale bölgesinde gerçekleştirilen Musical Bench projesi, hem müzik yapmak hem de oturma amacıyla kullanılabilen bir tasarım elemanı olarak mekânı daha ilgi çekici ve eğlenceli hale getirmeyi amaçlamaktadır. Bu yaratıcı bank, insanların oyun aracılığıyla bir araya gelmesini sağlayarak aktivite ve sosyal etkileşim düzeylerinin artmasına önemli katkıda bulunmuştur. Kullanıcıların etkileşimde bulunduğu bu tasarım, kamusal alanların dinamik, eğlenceli ve sosyal bir deneyim sunmasına olanak tanımaktadır (The Urban Conga, 2016).

Şekil 1. Humming Wall ve Musical Bench Projeleri

Shadowing ve Dance Step City

2014-2016 yılları arasında Bristol (İngiltere), Tokyo (Japonya), Tel Aviv (İsrail), Londra (İngiltere) ve Austin (ABD) gibi farklı şehirlerde uygulanan Shadowing projeleri, kullanıcıların beklenmedik alanlarda gölgeyle oyun keşfetmelerini sağlamak amacıyla tasarlanmıştır. Bu projeler, sakin caddeler ve patikalarda çeşitli gölge oyunları oluşturarak kullanıcıların oyun oynamasını, dans etmesini ve gölgelerini şekillendirmesini teşvik etmiştir. Benzer şekilde, 2016 yılında Boston (ABD) kentinde başlatılan Dance Step City projesi, yürüyüşlere eğlence katmayı hedeflemiştir. Bu proje, sıradan bir yürüyüşü kullanıcılar için eğlenceli ve dinamik bir deneyime dönüştürerek kamusal alanlarda hareketliliği ve etkileşimi artırmıştır (Playable City, 2014; Playable City, 2016).



Şekil 2. Shadowing ve Dance Step City Projeleri

Park and Slide ve PlaypublikFest

2014 yılında İngiltere'nin Bristol kentinde gerçekleştirilen *Park and Slide* projesi, Park Street'in 95 metrelik bir su kaydırağına dönüştürülerek halka açıldığı geçici bir etkinliktir. Üç gün boyunca süren bu proje, kentte eğlenceli ve interaktif bir aktivite yaratarak kamusal alanı yeniden kullanıma sunmuştur. Aynı yıl Polonya'nın Krakow kentinde düzenlenen *Playpublik Festivali* ise, kentsel alanların kurallarına meydan okuyarak daha eğlenceli ve yaratıcı kamusal alanlar oluşturmayı amaçlamıştır. Üç gün boyunca süren festival, katılımcılara oyun aracılığıyla kentsel mekânda yeni deneyimler yaşama fırsatı sunmuştur. Bu projeler, oyun aracılığıyla kamusal alanların dinamik ve katılımcı hale getirilmesine örnek teşkil etmektedir (*ArchDaily*, 2014; *Invisible Playground,* 2014).

Şekil 3. Park and Slide ve Playpublik Fest Projeleri

Stop, Smile, Stroll ve Hello Lamp Post

2016 yılında İngiltere'nin Bristol kentinde gerçekleştirilen *Stop, Smile, Stroll* projesi, yaya geçitlerindeki rutini bozarak sıradan yürüyüşleri eğlenceli hale getirmeyi amaçlamıştır. Proje, kullanıcıların kent mekânını daha keyifli bir şekilde deneyimlemelerine katkı sağlamıştır (*Playable City*, 2016)

Benzer şekilde, *Hello Lamp Post* projesi 2013 yılından itibaren Manchester (İngiltere), Austin (ABD), Singapur, Malmö (İsveç), Astana (Kazakistan) ve Bordeaux (Fransa) gibi farklı şehirlerde uygulanmıştır. Bu projeyle kent mobilyaları ve kullanıcılar arasında diyalog kurulmuş, günlük rutinlere eğlence katılarak şehir yaşamına hareketlilik ve etkileşim eklenmiştir. Her iki proje de akıllı kent unsurları aracılığıyla kullanıcıların kentle olan etkileşimini artırmayı ve kamusal alanları daha dinamik hale getirmeyi hedeflemiştir (*Hello Lamp Post*, 2015).

Şekil 4. Stop, Smile, Stroll ve Hello Lamp Post Projeleri

The Conversing Circuit ve Dancing Traffic Lights

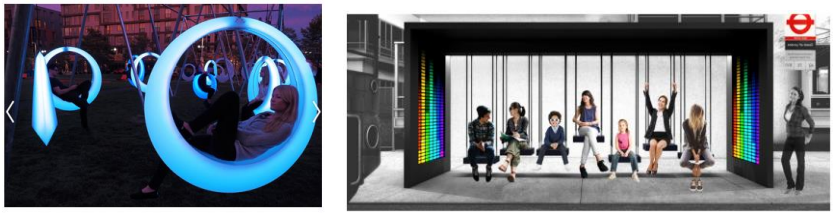
2016 yılında ABD'de hayata geçirilen The Conversing Circuit projesi, şehir içinde önemli konumların sesler ve renkler aracılığıyla belirlenmesini sağlayan bir interaktif deneyim sunarak, durakta bekleme sürelerini daha eğlenceli hale getirmeyi amaçlamaktadır. Bu tasarım, kullanıcıları dokunmaya ve iletişime geçmeye teşvik eden akıllı kent unsurlarından biridir. Benzer şekilde, 2014 yılında Portekiz'in Lizbon kentinde uygulanan Dancing Traffic Lights projesi, trafik ışıklarının hareket yakalama teknolojisiyle dans eden figürlere dönüştürülmesiyle yayaların güvenli bir şekilde karşıya geçmek için beklemelerini eğlenceli hale getirmiştir. Bu projeler, kullanıcı etkileşimini artırarak kentsel yaşamın rutinlerini

oyunlaştırma yoluyla yeniden şekillendirmekte ve akıllı kent tasarımlarına yaratıcı bir bakış açısı sunmaktadır (Playable City, 2016; Designboom, 2014).

Şekil 5. The Conversing Circuit ve Dancing Traffic Lights Projeleri

Swing Time ve Make Your Rhythm

2014 yılında Boston (ABD) kentinde gerçekleştirilen *Swing Time* projesi, parka hareket katmayı amaçlayan yenilikçi bir tasarımdır. Güneş enerjili LED ışıklarla donatılmış salıncak seti, kullanıcıların farklı hızlarda ve yüksekliklerde sallandıklarında renk değiştiren interaktif bir deneyim sunmuştur. Aynı yıl İran'da uygulanan *Make Your Rhythm* projesi, durakta bekleyen yolcuların eğlenmesini sağlamak amacıyla tasarlanmıştır. Bu projede, otobüs durağındaki koltuklar görünüşte birer salıncak gibi olup, hareket ettiklerinde LED ışıklar aracılığıyla ritmik bir görsel deneyim oluşturmuştur. Her iki proje de akıllı kent unsurları kullanarak kamusal alanlarda kullanıcıların etkileşimini artırmayı ve rutin deneyimleri eğlenceli hale getirmeyi hedeflemiştir (*ArchDaily*, 2014; *Playable City*, 2014).



Şekil 6. Swing Time ve Make Your Rhythm Projeleri

2017 yılında İtalya'nın Udine kentinde düzenlenen *World Games Day* etkinliği, şehir merkezinde çeşitli oyuncu aktiviteler düzenleyerek kentsel aidiyeti güçlendirmeyi, sağlıklı yaşamı ve eğlenceyi teşvik etmeyi amaçlamıştır. 50 organizasyonun katkısı ve 5.000'den fazla katılımcının yer aldığı bu etkinlik, kamusal alanların yenilikçi ve yaratıcı bir şekilde nasıl değerlendirilebileceği konusunda önemli bir örnek oluşturmuştur. Benzer şekilde, 1999 yılından itibaren Udine'de belirli zamanlarda hayata geçirilen *Ludobus / Playbus* projesi, oyun dolu bir minibüs aracılığıyla oyuncu aktivitelerin kentin mahallelerine taşınmasını sağlamıştır. Proje, kültür, dil, cinsiyet ve yaş kısıtlaması olmaksızın herkes için oyunu erişilebilir kılarak kentte kapsayıcılığın artırılmasına katkıda bulunmuştur. Gönüllü bir kuruluşun desteğiyle başlayan bu faaliyet, belediye tarafından finanse edilen kalıcı bir programa dönüşmüş ve İtalya'da oyunların değerine yönelik farkındalık yaratarak birçok şehirde oyunlaştırma politikalarının uygulanmasına ilham kaynağı olmuştur (*URBACT*, 2017).

Şekil 7. World Games Day ve Ludobus Projeleri

Yap-Yaşa ve Play Marmara

2010 yılında İstanbul'da uygulanan *Yap-Yaşa* projesi, adil, katılımcı ve interaktif bir kentsel dönüşüm senaryosu kurgulamak amacıyla hayata geçirilmiştir. Proje, oyunu bir problem çözme yöntemi olarak kullanarak politika yapıcıları, tarafları ve halkı bir masa etrafında birleştirmiştir. Benzer şekilde, 2019 yılında İstanbul'da gerçekleştirilen *Play Marmara* projesi, interaktif ve çok katmanlı bir yönetişim modeliyle bölgesel gelişme senaryoları oluşturmayı hedeflemiştir. Bu proje de oyunu bir araç olarak kullanarak farklı paydaşları bir araya getirerek katılımcı bir problem çözme yaklaşımını desteklemiştir. Her iki proje de yönetişim aracı olarak oyunun, kentsel dönüşüm ve bölgesel planlama süreçlerinde etkin bir iletişim ve iş birliği platformu sunabileceğini göstermiştir (*Play the City*, 2010; *Play the City*, 2019).

Şekil 8. Yap-Yaşa ve Play Marmara Projeleri

Mersin City Lab ve Metropoly

2019 yılında Mersin'de uygulanan Mersin City Lab projesi, yukarıdan aşağıya planlama anlayışının geçerli olduğu sistemlerde işbirlikçi bir şehir planlama metodunu hayata geçirmeyi amaçlamıştır. Oyunu bir problem çözme yöntemi olarak kullanan bu proje, politika yapıcıları, paydaşları ve halkı bir araya getirerek katılımcı bir yönetişim modeli oluşturmuştur.

Benzer şekilde, 2016 yılında Hollanda'da gerçekleştirilen Metropoly projesi, Amsterdam-Utrecht, Rotterdam-The Hague ve Eindhoven olmak üzere üç büyük metropol alanı için hızlı ve etkili yatırım kararları almayı kolaylaştırıcı bir araç geliştirmiştir. Bu proje, karşılıklı fayda sağlayan yatırım stratejileri belirleyerek tüm bölge için sinerjik kalkınma stratejilerinin anahtarı olmuştur. Ayrıca, profesyoneller için hızlı prototipleme ve öğrenme ortamı sunarak karar verme süreçlerini destekleyen bir platform oluşturmuştur (Mersin City Lab, 2019; Games for Cities, 2016).

Şekil 9. Mersin City Lab ve Metropoly Projeleri

4. SONUÇ

Oyuncu Şehirler kavramı, kentsel mekânların daha yaşanabilir, kapsayıcı ve yaratıcı hale gelmesini sağlayan yenilikçi bir tasarım ve planlama yaklaşımı sunmaktadır. Oyun ve etkileşim temelli bu yaklaşım, bireylerin kentsel alanlarla olan ilişkisini güçlendirirken, günlük yaşamlarına eğlence, anlam ve katılım fırsatları eklemektedir. Hem teorik temelleri hem de dünya genelindeki başarılı uygulamaları, oyuncu şehirler' in kentsel sürdürülebilirlik, sosyal bütünleşme ve katılımcı yönetişim açısından kritik bir rol oynadığını ortaya

koymaktadır. Bu kapsamda oyun; *tasarım elemanı, akıllı kent unsuru, aktivite alanı* ve *yönetişim aracı* olmak üzere dört temel kategoride karşımıza çıkmaktadır.

Tasarım elemanı olarak oyun, kent mobilyaları, enstalasyonlar ve interaktif unsurlar aracılığıyla kullanıcıları mekânda aktif rol almaya teşvik ederken, kamusal alanların yaratıcı kullanımını desteklemektedir. Akıllı kent unsuru olarak oyun, dijital teknolojiler ve interaktif sistemlerle birleşerek kent yaşamına hareketlilik ve etkileşim katmakta, günlük rutinleri oyunlaştırarak şehir deneyimini daha keyifli hale getirmektedir.

Aktivite alanı olarak oyun, bireylerin ve grupların katılımıyla kentsel mekânlarda sosyalleşmeyi ve sağlıklı yaşamı teşvik eden etkinlikler sunmaktadır. Bu tür oyun odaklı etkinlikler, kamusal alanların daha erişilebilir ve dinamik bir hale gelmesini sağlamaktadır. Son olarak, yönetişim aracı olarak oyun ise katılımcı şehir planlama süreçlerinde bir araç olarak kullanılmakta; politika yapıcılar, paydaşlar ve halkı bir araya getirerek, sorunların çözümü için ortak stratejiler geliştirilmesini mümkün kılmaktadır.

Sonuç olarak, oyuncu şehirler kavramı, tasarım ve teknolojiyi birleştirerek bireylerin kentsel mekânlara olan aidiyetini artırmakta, sosyal etkileşimi güçlendirmekte ve şehirlerin sürdürülebilir gelişimine katkı sunmaktadır. Oyunlaştırma sayesinde, kent mekânları yalnızca birer fiziksel alan olmaktan çıkıp, kullanıcıların hayatına anlam katan, katılımcı, eğlenceli ve yenilikçi birer deneyim alanına dönüşmektedir. Bu yaklaşım, gelecekte kentsel planlama ve tasarım süreçlerinde önemli bir referans noktası olma potansiyeline sahiptir.

5. KAYNAKLAR

ArchDaily. (2014). *Are playable cities the future of urbanism?*. Retrieved from https://www.archdaily.com/546443/are-playable-cities-the-future-of-urbanism

ArchDaily. (2014). *Get swinging in Boston on these glowing LED hoops*. Retrieved from https://www.archdaily.com/549643/get-swinging-in-boston-on-these-glowing-led-hoops

Caillois, R. (2001). *Man, play, and games*. University of Illinois Press. (Original work published 1961)

De Lange, M. (2015). The playful city: Using play and games to foster citizen participation. In A. Skaržauskienė (Ed.), *Social technologies and collective intelligence* (pp. 426-434). Vilnius: Mykolas Romeris University.

Debord, G. (1957). *Report on the construction of situations and on the international situationist tendency's conditions of organization and action*. Internationale Situationniste.

Designboom. (2014). *Dancing traffic light encourages pedestrians to wait*. Retrieved from https://www.designboom.com/design/dancing-traffic-light-pedestrians-cross-street-smart-09-17-2014/

Edirisinghe, C., Nijholt, A., & Cheok, A. D. (2016). From playable to playful: The humorous city. In *International Conference on Intelligent Technologies for Interactive Entertainment* (pp. 261-265). Springer, Cham.

Fonseca, X., Lukosch, S., & Brazier, F. (2018). Fostering social interaction in playful cities. In *Interactivity, Game Creation, Design, Learning, and Innovation* (pp. 286-295). Springer, Cham.

Games for Cities. (2016). *Metropoly*. Retrieved from http://gamesforcities.com/database/metropoly/

Glas, R., Lammes, S., de Lange, M., Raessens, J., & de Vries, I. (Eds.). (2019). *The playful citizen: Civic engagement in a mediatized culture*. Amsterdam University Press.

Hello Lamp Post. (2015). *How to play*. Retrieved from http://www.hellolamppostbordeaux.com/en/how-to-play

Huizinga, J. (1998). *Homo Ludens: A study of the play element in culture*. Routledge. (Original work published 1938)

Invisible Playground. (2014). *Playpublik Festival Krakow 2014*. Retrieved from https://secure.flickr.com/photos/invisibleplayground/albums/72157648315727509/page1

Leonardo Electronic Almanac. (2014). *Interactive public art project in Aalborg, Denmark*. Retrieved from https://www.leoalmanac.org/

Mersin City Lab. (2019). *City Game*. Retrieved from https://mersincitylab.com/City-Game

Nijholt, A. (2017). Towards playful and playable cities. In *Playable Cities* (pp. 1-20). Springer, Singapore.

Oldenburg, R. (2001). *The great good place: Cafes, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. Da Capo Press.

Playable City. (2014). *Make Your Rhythm*. Retrieved from https://www.playablecity.com/projects/make-your-rhythm/

Playable City. (2014). *Shadowing*. Retrieved from https://www.playablecity.com/projects/shadowing/

Playable City. (2016). *Dance Step City*. Retrieved from https://www.playablecity.com/projects/dance-step-city

Playable City. (2016). *Stop, Smile, Stroll*. Retrieved from https://www.playablecity.com/projects/stop-smile-stroll/

Playable City. (2016). *The Conversing Circuit*. Retrieved from https://www.playablecity.com/projects/the-conversing-circuit/

Play the City. (2010). *Yap-Yaşa*. Retrieved from https://www.playthecity.eu/playprojects/Yap–Yaşa

Play the City. (2019). *Play Marmara*. Retrieved from https://www.playthecity.eu/playprojects/Play-Marmara

Sharpe, E. K., & Glover, T. D. (2020). Placemaking in the playful city. In *Leisure Communities: Rethinking Mutuality, Collective Identity and Belonging in the New Century*.

Stevens, Q. (2007). *The ludic city: Exploring the potential of public spaces*. Routledge.

Sutton-Smith, B. (2001). *The ambiguity of play*. Harvard University Press.

The Urban Conga. (2016). *Why sit when you can play?*. Retrieved from http://www.theurbanconga.com/whysitwhenyoucanplayftl

URBACT. (2017). *Playful Paradigm*. Retrieved from https://urbact.eu/playful-paradigm

URBACT. (2017). *Welcome to European Playful Cities*. Retrieved from https://urbact.eu/welcome-european-playful-cities

PANDEMİNİN TURİZM SEKTÖRÜNE OLAN ETKİLERİ

Burcu İMREN GÜZEL[1]

1. GİRİŞ

Geçmişten bu yana önemli bir sektör olan turizm "bacasız sanayi" olarak tanımlanmaktadır ve birçok ülkenin ekonomik yapısında hayati bir rol oynamaktadır. Ekonomik büyümede üzerinde büyük bir etkisi bulunmaktadır ve bir ülkenin toplam millli gelirine katkı sağlamaktadır. Turizm, çok sayıda sektörle iç içe geçmiş olup, bu sektörlerin ekonomik performanslarını da doğrudan etkilemektedir. Turizm diğer sektörlere nazaran krizlere karşı oldukça hassastır ve bu krizlerden en çok etkilenen sektörlerden birisidir. Kriz dönemlerinde turist sayısı ve gelirleri ciddi şekilde azalmaktadır.

Mart 2020'de pandemi olarak ilan edilen COVID-19 salgını hızla tüm dünyaya yayılmıştır. Bu pandemi çok ciddi kısıtlamaları beraberinde getirmiştir ve turizm hareketliliği bu süreçte durma noktasına gelmiştir. Ülkemiz açısından değerlendirdiğimizde, Türkiye önemli turizm potansiyeline sahip ülkelerden biridir. Bu alanda sürekli ivme kazanarak ilerlemektedir. Geçmiş dönemlerde farklı krizlerle karşılaşan ülkemiz bu süreçleri başarıyla atlatabilmiştir. Ancak pandemi sürecinde ülkemiz de büyük oranda etkilenmiş ve ciddi tehdit altında kalmıştır.

[1] Dr. Öğr. Üyesi, Niğde Ömer Halisdemir Üniversitesi Mimarlık Fakültesi Şehir ve Bölge Planlama Bölümü, bimren@gmail.com, ORCID: 0000-0002-1682-9265.

Çalışma kapsamında turizm ve pandemi arasındaki ilişki irdelenmiş ve önümüzdeki olası pandemiler için bir bakış açısı oluşturulmaya çalışılmıştır. Bu kapsamda önce "Turizm ve Önemi", sonrasında "Turizm ve Pandemi" başlıkları ele alınmış, son olarak da genel bir değerlendirme yapılmıştır.

2. TURİZM VE ÖNEMİ

Turizmin kökeni eski Romalılara ve Yunanistan'a kadar uzanmaktadır ve ekonomik katkısı nedeniyle geçmişten bu yana önemli bir sektör olarak değerlendirilmektedir (Shahraki, 2022). Turizm sektörü birçok ülke için rekabetçi bir anlayışla öne çıkmanın, gelişmenin anahtarı olarak görülmektedir ve "bacasız sanayi" terimiyle adlandırılmaktadır (Arslan, 2023). Ekonomik kalkınmanın ana sektörlerinden biri olarak kabul edilmektedir (Kocak, Okumus, & Altin, 2023; Kıvılcım, 2020; Kışla, Türkcan, & İnce Yenilmez, 2023). Turizm sektörü, gelir yaratıcı bir etkiye sahiptir ve istihdam olanakları açısından dünyanın üçüncü büyük sektörü olarak nitelendirilmektedir (Türkmen, 2023; Bayram, Bayram, & Sak, 2023; Kumar & Ekka, 2024). Turizm sektörü geçmişten günümüze dünya çapında milyonlarca insana geçim kaynağı sağlamaktadır. İstihdam yaratmanın en önemli kaynaklarından biridir (Kışla, Türkcan, & İnce Yenilmez, 2023). Dünya genelinde her on kişiden birisi turizm sektöründe çalışmaktadır ve milyonlarca kişiye geçim kaynağı sağlamaktadır (Boz, 2023). Özellikle İkinci Dünya Savaşı'ndan sonra önemli bir küresel ekonomik faaliyet haline gelmiştir (Göktepe & Çetin, 2020). Turizm dünyada bazı ülkeler için hayati öneme sahiptir (Bayram, Bayram, & Sak, 2023; John-Nsa & Ezeadichie, 2021). İster gelişmiş ister gelişmekte olan bir ekonomi olsun, turizm endüstrisi ekonomiye önemli bir katkıda bulunmakta ve yerel nüfus için bir istihdam kaynağı olmaktadır

(Faeni, Faeni, Riyadh, & Yuliansyah, 2023). Birçok bölge, ekonomi ve yaşam kalitesini geliştirmek için turizm endüstrisinden yararlanmaya çalışmaktadır (Shahraki, 2022). Halkın yaşam kalitesini artırmak ve insanların iyi yaşam arzusunu karşılamak için önemli bir taşıyıcıdır (Jiang, Guo, & Zhou, 2023). Turizm özellikle az gelişmiş ve gelişmekte olan ülkelerin ekonomileri için son derece önemli bir sektördür (Coşkun & Akgündüz, 2023). Bir ülkenin milli gelirine katkı sağlayan turizm yatırımları teşvik etmektedir (Türkmen, 2023). Kalkınma faaliyetlerini artırmada, ekonomik büyümede ve bir ulus için küresel imaj yaratmada önemli bir rol oynamaktadır (Sufian & Hoque, 2023).

Turizm ekonominin birçok sektörünü birbirine bağlayan bir köprüdür (Komasi, Zolfani, & Cavallaro, 2022). Ulaşım, kültür, spor, sağlık, gıda üretimi, etkinlik işletmeleri ve daha birçok sektör için bir pazar görevi görmektedir (Kumar & Ekka, 2024). Turizm, yüksek çarpan etkisine sahiptir ve 135'ten fazla sektörü ekonomik olarak etkilemektedir. Ulaşım, inşaat, ticaret, finans, sağlık gibi birçok önde gelen sektörü döviz girdisi yaratarak tetiklemektedir (Göktepe & Çetin, 2020). Turizm sektörü diğerleriyle kıyaslandığında yerel ve küresel düzeyde yaşanan sorunlardan daha fazla etkilenen bir yapıya sahiptir (Arslan, 2023). Turizm sektörü, savaş, terörizm, doğal afet, sağlık krizi, ekonomik istikrarsızlık gibi olaylarla karşı karşıya kaldığında ekonomik açıdan en olumsuz etkilenen sektörlerden biri olarak değerlendirilmektedir (Anguera-Torrell, Vives-Perez, & Aznar-Alarcon, 2021; Seyitoğlu & Costa, 2022; Sufian & Hoque, 2023; Bayram, Bayram, & Sak, 2023; Kıvılcım, 2020; Arslan, 2023; Taşkın, Tuna, & Birkan, 2024; Göktepe & Çetin, 2020; Zhao, Meo, Ibrahim, Aziz, & Nathaniel, 2023; Coşkun & Akgündüz, 2023; Kocak, Okumus, & Altin, 2023). Kriz süreçlerinde turizm olumsuz etkilenmektedir ve turist

akışlarında ve harcamalarında ani düşüler gerçekleşmektedir (Türkmen, 2023). Kriz dönemlerinde ülkeye gelen yabancı turist sayısı ve iç turizm faaliyetleri azalmaktadır (Coşkun & Akgündüz, 2023).

3. TURİZM VE PANDEMİ

Çin'in Wuhan şehrinde Aralık 2019'da ortaya çıkan COVİD-19 salgını kısa sürede tüm dünyaya yayılmıştır (Coşkun & Akgündüz, 2023; Arslan, 2023). Dünya Sağlık Örgütü (WHO) tarafından COVİD-19 salgınının 11 Mart 2020 tarihinde pandemi olarak ilan edilmesiyle birlikte dünya genelinde ülkeler olağanüstü önlemler almak zorunda kalmıştır (Coşkun & Akgündüz, 2023; Göktepe & Çetin, 2020; Altuntas & Gok, 2021). Günümüzde küresel değişimlerle birlikte büyük salgın ve pandemilerin ortaya çıkma olasılığı artmaktadır (Gössling, Scott, & Hall, 2021). Küreselleşmenin doğal bir sonucu olarak artan seyahat faaliyetleri özellikle son yıllarda bulaşıcı hastalıkların ortaya çıkmasına ve hızla yayılmasına neden olmaktadır (Kocak, Okumus, & Altin, 2023). Dünya son 40 yılda çok sayıda büyük salgın/pandemi yaşamakla birlikte bunların hiçbiri küresel ekonomi üzerinde Kovid-19 salgını kadar etki yaratmamıştır (Gössling, Scott, & Hall, 2021; Neshat, Moayedfar, Rezaee, & Biuki, 2024). Geçmişteki krizlerle karşılaştırıldığında COVID-19'un ekonomik etkisi eşi benzeri görülmemiş düzeydedir (Kumar & Ekka, 2024). Koronavirüs dünya çapında benzeri görülmemiş ekonomik krizlere yol açmış ve dünya çapında işletmeleri ve insanları felce uğratmayı başarmıştır (Kışla, Türkcan, & İnce Yenilmez, 2023).COVID-19 küresel salgını, 'İspanyol Gribi' salgınından (1918-1920) bu yana görülmemiş bir sağlık krizi yarattı (Martins, Guerra, & Santos, 2022). Diğer salgınlardan farklı olarak Covid-19'un küresel düzeyde ekonomi alanında en yıkıcı etkilere sahip salgın olduğu düşünülmektedir (Arslan, 2023; Çakır & Kır, 2023). Başlangıçta

bir sağlık krizi olduğu düşünülmüş ancak kısa sürede sosyal ve ekonomik bir krize dönüşmüştür (Akkemik & Perlaky, 2023; Stankov & Filimonau, 2023; Göktepe & Çetin, 2020).

COVİD-19 2020 yılının ilk aylarından itibaren tüm dünyaya yayılma eğilimi göstermiştir. Dünya toplumu üzerinde olumsuz ve kalıcı izler bırakan bir salgın hastalık olarak tarihe geçmiştir ve turizm sektörünü de etkilemiştir (Arslan, 2023; Cabeça, 2022; Şengel, 2021). Turizm sektörü, COVİD-19 salgınından en çok etkilenen sektörlerden biri olmuştur (Srisawat, Zhang, Sukpatch, & Wichitphongsa, 2023; Borges-Tiago, ve diğerleri, 2021; Bond-Smith & Fuleky, 2023; Kocak, Okumus, & Altin, 2023; Durgun & Davras, 2024; Zorlu, Tuncer, & Taşkın, 2023; Jafari, Özduran, & Saydam, 2023; Zhao, Meo, Ibrahim, Aziz, & Nathaniel, 2023). Dünya Sağlık Örgütü'ne göre, COVİD-19 salgını turizm sektörü için tüm zamanların en büyük felaketidir (Coşkun & Akgündüz, 2023). Ulusal ve uluslararası düzeyde insan hareketliliği durma noktasına gelmiş, hemen hemen her ülkede turizmle ilgili işler belli bir süreliğine durmuştur (Şengel, 2021). Hükümetler, COVID-19 virüsünün yayılmasını azaltmak için insan sağlığını korumak amacıyla benzeri görülmemiş önlemler aldı. Bu kısıtlamalar insanların evde kalmasına, iş yerlerinin gelir kaybetmesine ve insanların işsiz kalmasına neden oldu (Bayat, 2020). Dünya genelinde hükümetlerin aldığı önlemler sonucunda salgının daha fazla yayılmasını önlemek amacıyla hem yurt içi hem de yurt dışı seyahatler kısa sürede kısıtlanmıştır ve bu durum turizm faaliyetlerinde ciddi düşüşlere yol açtı (Akkemik & Perlaky, 2023). Alınan tecrit ve tecrit önlemleri, dünyadaki gelişmiş ve gelişmekte olan her ekonomiyi pratik olarak etkilemiştir (Anguera-Torrell, Vives-Perez, & Aznar-Alarcon, 2021). Birçok ülke, COVİD-19 vakalarının sayısını azaltmak için sınırların kapatılması, seyahat

kısıtlamaları, karantina gibi önlemler almış, salgının yayılmasını azaltmak için alınan bu önlemler turizm faaliyetlerini derinden etkilemiştir (Coşkun & Akgündüz, 2023; Göktepe & Çetin, 2020). Ülkelerin salgınların etkisini azaltmak için en etkili yöntemleri pandemi dönemlerinde bölgeleri karantinaya almaktır. Pandemi sırasında alınan karantina kararları konaklama sektörünü doğrudan etkilemektedir (Altuntas & Gok, 2021). Karantina, sınırların kapatılması, bireylerde oluşturduğu sağlık endişesi, hükümetlerin yaptırımları ve uyarılarıyla 2020 turizmini önemli ölçüde etkilemiştir (Zaman, Erdoğan, & Eşim, 2024). Salgının dünya çapında yayılmasını engellemek amacıyla uygulanan katı hareket kısıtlamaları nedeniyle turist sayısında ciddi düşüşler yaşanmıştır (Zhang, Sun, & Lu, 2023). COVID-19 salgınının patlak vermesi, dünya çapında turizm coğrafyalarının artan genişlemesine meydan okumuş ve bu sektörün hem arz hem de talep yönünü etkileyen en sert darbelerden birini vurmuştur (Sufian & Hoque, 2023).

COVİD-19 nedeniyle turizm sektöründe turist gelişlerindeki ani düşüş milyonlarca istihdam kaybını ve ekonomik sıkıntıyı tetiklemiş, turistlere hizmet veren küçük, mikro ve orta ölçekli girişimler başta olmak üzere birçok firmayı ortadan kaldırmıştır (John-Nsa & Ezeadichie, 2021). Rakamlara ve verilere göre COVİD-19 öncesinde olumlu bir seyir izleyen turizm sektörü, COVİD-19 sonrasında gözle görülür bir ivmeyle gerilemeye başladı (Bayram, Bayram, & Sak, 2023). Dünya Turizm Örgütü'nün verilerine göre, küresel turizm 2020'de o zamana kadarki en kötü yılını yaşadı ve uluslararası hareketlilik sınırların kapanması, seyahat yasakları ve kısıtlamalar nedeniyle bir önceki yıla göre %74 azaldı (Seyitoğlu & Costa, 2022; Yu, Zhao, Tang, & Pang, 2023; Boz, 2023; Martins, Guerra, & Santos, 2022). Ekonomik kalkınma ve istihdam fırsatları büyük ölçüde turizm sektörüne dayanan birçok gelişmekte olan ülkede,

uluslararası turist girişlerinde %80-90 oranında bir azalma yaşanmıştır (Boz, 2023). Bu durum uluslararası turizm gelirinde potansiyel olarak 2,4 trilyon dolarlık bir kayba yol açtı (Yu, Zhao, Tang, & Pang, 2023). COVID-19 sırasında dünyanın dört bir yanından milyonlarca işçi işsiz kaldı (Zhang, Sun, & Lu, 2023). Dünya Seyahat ve Turizm Konseyi'nin (WTTC) araştırma raporuna göre, Kovid-19 salgını nedeniyle 75 milyondan fazla işçi işsizlikle karşı karşıya kalmıştır (Sufian & Hoque, 2023; Arslan, 2023; Muragu, Nyadera, & Mbugua, 2023).

COVİD-19 salgını öncesinde birçok ülkede turizm hızla ilerliyordu (Shahraki, 2022). Turizm dünya çapında en hızlı büyüyen ve en büyük endüstrilerden biri olmasına rağmen salgından kötü etkilendi (John-Nsa & Ezeadichie, 2021). Koronavirüs pandemisi, son yıllarda gerçek bir patlama yaşayan bir sektör olan turizmin büyümesini geçici olarak durdurdu (Corbisiero & Monaco, 2021). Turizm, hem virüsün yayılmasını hızlandırmış ancak aynı zamanda en kötü etkilenen ekonomik sektörlerden biri olmuştur (Anguera-Torrell, Vives-Perez, & Aznar-Alarcon, 2021). Dünyada turizmin zirveye çıktığı yıl olan 2019'da birçok ülke kendi rekorlarını kırmış ancak sonraki yıllar için daha yüksek hedefler koyan ülkeler Kovid-19 salgınıyla birlikte tam anlamıyla hayal kırıklığına uğramıştır (Taşkın, Tuna, & Birkan, 2024). 2019 yılında ilk kez 1,5 milyarı aşan uluslararası turist hareketi, COVİD-19'un etkisiyle neredeyse durma noktasına gelmiştir (Zorlu, Tuncer, & Taşkın, 2023; Li, Tao, & Lu, 2023). Uygulanan pandemi kısıtlamaları sonucunda otellerin doluluk oranlarında büyük düşüş yaşandı. Salgından ilk ve en kötü etkilenen ülkelerden biri olan İtalya'da salgının ilk günlerinde Roma'da yaklaşık %90, Sicilya'da ise %80 oranında rezervasyon iptali gerçekleşmiştir. Dünyanın en çok ziyaret edilen ülkelerinden biri olan İspanya'da dış turizm, 2020'de

%70'ten fazla düşüş göstermiştir (Jafari, Özduran, & Saydam, 2023). COVİD-19 salgını turizm endüstrisini önemli ölçüde etkilemiş, ev sahibi ülkelere gelen turist sayısında azalmaya yol açmıştır (Şeker & Bozkurt, 2024). İptal edilen etkinliklerin, kapatılan konaklama yerlerinin ve kapatılan eğlence mekanlarının etkisi, yemek ve çamaşırhane hizmetleri gibi tedarik zincirinin diğer kısımlarında da anında hissedilmiştir. Restoranlar da kapanmak zorunda kalmıştır (Gössling, Scott, & Hall, 2021).

Turizm sektörü COVİD-19'dan iki şekilde etkilenmiştir. Öncelikle seyahat kısıtlamaları yerli ve yabancı pek çok turistin ülkeye ve bölgeye girişini engellemiş, karantina dönemleriyle bu süreç uzamıştır. Daha sonra COVİD-19 nedeniyle işten çıkarılan veya işleri bozulan bireyler, turizm hareketlerine katılacak yeterli bütçe ve ekonomik güce sahip olmadıkları için turizm faaliyetlerine katılamamışlardır (Bayram, Bayram, & Sak, 2023). Pek çok kişi ve aile işini kaybetmiş ya da gelirleri azalmıştır, bu da seyahat etmelerini zorlaştırmıştır (Şeker & Bozkurt, 2024). Pandemi turizm sayılarında ve gelirlerinde önemli bir düşüşe yol açarak birçok turizm işletmesinin mali zorluklar yaşamasına da neden olmuştur Özellikle gelişmekte olan ülkelerde turizme bağlı işlerde ve geçim kaynaklarında düşüşe yol açmıştır. Bu durum, gelir kaynağı olarak ağırlıklı olarak turizme dayanan bu toplulukların karşılaştığı ekonomik ve sosyal zorlukları daha da artırmıştır (Srisawat, Zhang, Sukpatch, & Wichitphongsa, 2023). Özellikle gelişmekte olan ve az gelişmiş ülkelerde yoksulluk artmış, sosyal ve ekonomik eşitsizlikler büyümüştür. Bu durum sürdürülebilir kalkınma hedeflerinde de ciddi aksamalara yol açmış; üretim, tüketim ve ekonomik büyüme yavaşlamıştır (Bayram, Bayram, & Sak, 2023). Dünya çapındaki turizm işletmeleri açık kalmak için mücadele etmişlerdir (Martins, Guerra, & Santos, 2022). Turizm

sektörü önemli bir kazanç kaynağı olduğundan bu olumsuz etkiler bir ülkenin GSYİH'sini de etkilemektedir (Zhao, Meo, Ibrahim, Aziz, & Nathaniel, 2023).

COVID-19 salgını salgınları aralıklı olarak devam etmiş ve turizmin gelişimi büyük zorluklarla karşı karşıya kalmıştır (Jiang, Guo, & Zhou, 2023). 2022'de turizm rakamları artmasına rağmen 2019 seviyelerinin altında kalmıştır. İyileşme yavaş ama özellikle iç turizm sektöründe gerçekleşmiştir (Cabeça, 2022). Uluslararası talep dünya çapında bir çöküş yaşarken, salgının belirli aşamalarında iç turizm bir ölçüde mümkün oldu (Falk, Hagsten, & Lin, 2023). Küresel turizm sektörü, COVİD-19 salgınının etkileriyle boğuşurken, bu süreçte yerel turizmi geliştirmeye yönelik desteklerin arttığı görülmüştür (Faeni, Faeni, Riyadh, & Yuliansyah, 2023). Pandemi sonrasında uluslararası turizm talebine olan talep önemli ölçüde azaldığından, pandemi iç turizm pazarlarında rekabetin artmasına neden olmuştur (Wickramasinghe & Naranpanawa, 2023). Uluslararası seyahatlerdeki düşüş, çeşitli destinasyonlarda sürdürülebilir turizm uygulamalarının önemini vurgulayan iç ve bölgesel turizmde artışa yol açmıştır (Srisawat, Zhang, Sukpatch, & Wichitphongsa, 2023).

Büyük şehirler bu küresel salgının ana alanları olarak tanımlanmaktadır ve ciddi şekilde etkilenmişlerdir. Şehir turizminin toparlanması yavaş olmuştur. Kırsal alanlar geniş alanları, az nüfusu ve ekolojik koşullarıyla COVID-19'un yayılma riski daha düşük olduğu alanlardır. Bu süreçte bu özellikleriyle kırsal turizm birçok araştırmacının dikkatini çekmektedir (Li, Tao, & Lu, 2023). Bir zamanlar ağırlıklı olarak kitle turizmine dayanan turizm endüstrisi, artık gezginlerin güvenliğe ve sürdürülebilirliğe öncelik verdiği yeni bir gerçekliğe uyum sağlama zorluğuyla karşı karşıya kalmıştır (Srisawat, Zhang, Sukpatch, & Wichitphongsa, 2023). Son

yıllarda doğaya dayalı turizme yönelik küresel talebin istikrarlı bir şekilde arttığına dikkat çekilmektedir (Perera, Jayakody, Jayapali, & Newsome, 2023). Gerek sağlık krizi sonrası doğaya olan talebin artması, gerekse insanların artık kalabalık ortamlar yerine açık alanları tercih etmesi nedeniyle turizmin başlı başına bir dönüşüm geçirdiğini söylemek yanlış olmayacaktır (Taşkın, Tuna, & Birkan, 2024).

COVID-19'un turizm endüstrisini dönüştürecek ve alt üst edecek büyük bir aksama olduğu ve sektör için bir dönüm noktası olduğu öne sürülmektedir (Filep, King, & McKercher, 2024). Bununla birlikte insan seyahati faaliyetleri hiçbir zaman tamamen durmamış ve turizm sektörü büyük bir direnç göstermiştir (Li, Tao, & Lu, 2023). Araştırmacılar, salgın sonrası dünyada turizmin geleceğini sorgulamaktadırlar (Cabeça, 2022). Birçok çalışma, COVID-19'un uluslararası turizm üzerindeki büyük zararlı etkisi göz önüne alındığında, salgın sonrası geleceği düşünmeye ve tahmin etmeye çalışmıştır (Stankov & Filimonau, 2023). Turizmde başarının en büyük şartlarından biri mevcut pandemi süreçlerini en iyi şekilde yönetmektir (Taşkın, Tuna, & Birkan, 2024). COVID-19 nedeniyle turist hareketliliğindeki değişikliklerin değerlendirilmesi, sürdürülebilir kalkınma hedeflerine ulaşmak ve salgın sonrası ekonomik toparlanmaya yönelik politikaların uygulanması açısından önemlidir (Yu, Zhao, Tang, & Pang, 2023).

4. SONUÇ

Pandemiler, günümüzün kaçınılmaz olgularından biri haline gelmiştir ve geçmişe kıyasla bu tür küresel sağlık krizleriyle karşılaşma olasılığımız giderek artmaktadır. Pandemide dünya genelinde alınan tedbir kararları herkesi olumsuz etkilemektedir. Turizm geçmişten günümüze hızla

ilerleyen bir sektördür ve ülkelerin önemli gelir kaynağıdır. Ancak pandemi süreçlerinden en çok etkilenen sektörlerden birisidir. Yapısı itibariyle diğer sektörlerle de bağlantısı olduğundan, turizmde meydana gelen her türlü olumsuz etken diğer sektörleri de olumsuz etkilemektedir. Turizm COVİD-19 pandemi sürecinde neredeyse durma noktasına gelmiştir ve ülkeler ekonomik anlamda sıkıntıya girmişlerdir. Ülkemizde de turizm hızla ilerlerken pandemiyle birlikte sekteye uğramıştır. Turizm sektörünün ülkeler için önemi ve pandemilerin ortaya çıkma olasılığının artması durumu göz önünde bulundurulduğunda, ülkelerin bu duruma yönelik plan, politika ve strateji kararları geliştirmeleri bir zorunluluk haline gelmiştir. Bu bağlamda ülkelerin bu duruma bir yanıt geliştirmeleri uzun vadede ekonomik istikrarlarını sağlamak adına büyük bir önem taşımaktadır.

5. KAYNAKÇA

Akkemik, K. A., & Perlaky, D. (2023). Impact Of Covid-19 On Tourism: Evidence From Sam Assesments Of Hungary And Turkey. *Advances in Hospitality and Tourism Research*, 11 (1): 146-170.

Altuntas, F., & Gok, M. S. (2021). The effect of COVID-19 pandemic on domestic tourism: A DEMATEL method analysis on quarantine decisions. *International Journal of Hospitality Management* , 92 (2021) 102719.

Anguera-Torrell, O., Vives-Perez, J., & Aznar-Alarcon, J. (2021). Urban tourism performance index over the COVID-19 pandemic. *International Journal Of Tourism Cities*, Vol. 7 No. 3, pp. 565-582.

Arslan, M. (2023). Covıd-19 Salgınının Kent Turizmi Faaliyetlerine Etkisi Ve Değişen Turizm Anlayışı. *Nevşehir Hacı Bektaş Veli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 13 (4): 1956-1968.

Bayat, G. (2020). The Effects of COVID-19 on the Tourism Sector and Hotel Businesses: The Case of Marmaris. *Iğdır Üniversitesi Sosyal Bilimler Dergisi*, 23: 617-634.

Bayram, G. E., Bayram, A. T., & Sak, M. (2023). Learn From The Past, Covid-19 and Beyond: The Case of Türkiye. *Journal of Mediterranean Tourism Research*, 3(1), 37-48.

Bond-Smith, S., & Fuleky, P. (2023). The effects of the pandemic on the economy of Hawaii. *Current Issues in Tourism*, 26:23, 3846-3852.

Borges-Tiago, T., Silva, S., Avelar, S., Couto, J. P., Mendes-Filho, L., & Tiago, F. (2021). Tourism and COVID-19: The Show Must Go On. *Sustainability*, 13, 12471.

Boz, M. (2023). COVİD'19 pandemisinin turizm endüstrisine etkileri: Pandemi sonrası tatil turizminde turist tercihleri üzerine bir araştırma. *tujom* , 8 (1):1-16.

Cabeça, S. M. (2022). Post-Pandemic Tourism: Opportunities For Creative Tourism. *PEOPLE: International Journal of Social Sciences*, 8(3), 86-106.

Corbisiero, F., & Monaco, S. (2021). Post-pandemic tourism resilience: changes in Italians' travel behavior and the possible responses of tourist cities. *Worldwide Hospitality and Tourism Themes,* Vol. 13 No. 3, pp. 401-417.

Coşkun, O., & Akgündüz, Y. (2023). Struggling the COVID-19 Pandemic of Professional Tourist Guides: A Case Study in Turkey. *Journal Of Academic Tourism Studies*, Vol. 4, No. 1, 1-18.

Çakır, G., & Kır, H. (2023). Determining how the Covid-19 pandemic affects ecotourism in Giresun province. *Anatolian Journal of Forest Research*, 9(2) (2023) 16-21.

Durgun, S., & Davras, Ö. (2024). Determining the Antecedents Influences on Travel Intention and Willingness to Pay during the Pandemic. *International Journal of Hospitality & Tourism Administration*, 25:1, 1-29.

Faeni, D. P., Faeni, R. P., Riyadh, H. A., & Yuliansyah, Y. (2023). The COVID-19 pandemic impact on the global tourism industry SMEs: a human capital development perspective. *Review of International Business and Strategy*, Vol. 33 No. 2, pp. 317-327.

Falk, M., Hagsten, E., & Lin, X. (2023). Uneven domestic tourism demand in times of pandemic. *Tourism Economics*, Vol. 29(3) 596–611.

Filep, S., King, B., & McKercher, B. (2024). Reflecting on tourism and COVID-19 research. *Tourism Recreation Research*, 49:2, 426-430.

Göktepe, S., & Çetin, G. (2020). The Effects Of The Covid-19 Pandemic On The Tourism Industry. Istanbul University Publication.

Gössling, S., Scott, D., & Hall, C. (2021). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29:1, 1-20.

Jafari, K., Özduran, A., & Saydam, M. B. (2023). Hospitality and tourism industry amid COVID-19 pandemic: voices from small Mediterranean town. *International Hospitality Review*, Vol. 37 No. 2 pp. 243-264.

Jiang, Y., Guo, Y., & Zhou, H. (2023). Residents' Perception of Tourism Impact, Participation and Support in Destinations under the COVID-19 Pandemic: The Intermediary Role of Government Trust. *Sustainability*, 15(3), 2513.

John-Nsa, C. A., & Ezeadichie, N. H. (2021). Adaptive domestic tourism planning: the 21st century global Covid-19 pandemic challenge. *Journal of Environmental Management and Safety*, Vol. 12, No. 1, 1 – 17.

Kışla, G. Ş., Türkcan, B., & İnce Yenilmez, M. (2023). How covid-19 has affected supply and demand within tourism industry? *Journal of multidisciplinary academic tourism*, 8 (1): 39-49.

Kıvılcım, B. (2020). Covid-19 (Yeni Koronavirüs) Salgınının Turizm Sektörüne Muhtemel Etkileri. *USOBED Uluslararası Batı Karadeniz Sosyal ve Beşeri Bilimler Dergisi*, 4(1): 17-27.

Kocak, E., Okumus, F., & Altin, M. (2023). Global pandemic uncertainty, pandemic discussion and visitor behaviour: A comparative tourism demand estimation for the US. *Tourism Economics*, Vol. 29(5) 1225–1250.

Komasi, H., Zolfani, S. H., & Cavallaro, F. (2022). The COVID-19 Pandemic and Nature-Based Tourism, Scenario Planning Approach (Case Study of Nature-Based Tourism in Iran). *Sustainability*, 14(7), 3954.

Kumar, P., & Ekka, P. (2024). Statistical analysis of the impacts of COVID-19 pandemic on the small and large-scale tourism sectors in developing countries. *Environment, Development and Sustainability* , 26:9625–9659.

Li, L., Tao, Z., & Lu, L. (2023). Understanding differences in rural tourism recovery: a critical study from the mobility perspective. *Current Issues in Tourism*, 26:15, 2452-2466.

Martins, M., Guerra, R., & Santos, L. (2022). Rethinking Tourism Planning and Development in a Post COVID-19 World. E. Christou, & A. Fotiadis içinde, *Reviving tourism, in the postpandemic era* (s. 144-158). Sindos: International Hellenic University.

Muragu, M. M., Nyadera, I. N., & Mbugua, C. W. (2023). Gearing up for the new normal: Kenya's tourism sector before and after the COVID-19 pandemic. *Journal of Policy Research in Tourism, Leisure and Events*, 15:1, 88-105.

Neshat, N., Moayedfar, S., Rezaee, K., & Biuki, N. A. (2024). Sustainable planning of developing tourism destinations after COVID-19 outbreak: a deep learning approach. *Journal of Policy Research in Tourism, Leisure and Events*, 16:1, 1-21.

Perera, P., Jayakody, C., Jayapali, U., & Newsome, D. (2023). Challenges and opportunities for the resumption of nature tourism in post-pandemic Sri Lanka. *International Journal of Geoheritage and Parks,* 11 (2023) 234–246.

Seyitoğlu, F., & Costa, C. (2022). A scenario planning framework for (post-)pandemic tourism in European destinations. *European Planning Studies*, 30:12, 2554-2574.

Shahraki, A. A. (2022). Tourism development techniques in the urban master plan. *Cogent Business & Management*, 9: 2042977.

Srisawat, P., Zhang, W., Sukpatch, K., & Wichitphongsa, W. (2023). Tourist Behavior and Sustainable Tourism Policy Planning in the COVID-19 Era: Insights from Thailand. *Sustainability*, 15(7), 5724.

Stankov, U., & Filimonau, V. (2023). Here and now – the role of mindfulness in postpandemic tourism. *Tourism Geographies*, 25:1, 374-389.

Sufian, A., & Hoque, M. J. (2023). Impact of COVID-19 pandemic on tourism geographies of Bangladesh: study on Sylhet region. *GeoJournal*, 88:1355–1367.

Şeker, F., & Bozkurt, A. (2024). What if the Covid-19 Pandemic Never Happened? Estimation of the Tourist Arrivals for 2020 Via Levenberg-Marquardt Optimization and K-Star (K*) Machine Learning Algorithms. *Journal of Tourism and Gastronomy Studies*, 12 (1), 703-717.

Şengel, Ü. (2021). COVID-19 and "New Normal" Tourism: Reconstructing Tourism. *Journal of Tourism & Development*, 35: 217 - 226.

Taşkın, G. A., Tuna, M., & Birkan, İ. (2024). Türkiye's Tourism Success During and Post COVID-19. *Journal of Hospitality and Tourism Issues*, 6(1), 1-15.

Türkmen, N. C. (2023). Ekonomik Krizler ve Pandeminin Türk Turizm Sektörüne Etkilerinin İncelenmesi. *Journal of Tourism and Gastronomy Studies*, 11 (4), 3510-3535.

Wickramasinghe, K., & Naranpanawa, A. (2023). Tourism and COVID-19: An economy-wide assessment. *Journal of Hospitality and Tourism Management*, 55 (2023) 131–138.

Yu, L., Zhao, P., Tang, J., & Pang, L. (2023). Changes in tourist mobility after COVID-19 outbreaks. *Annals of Tourism Research*, 98 (2023) 103522.

Zaman, S., Erdoğan, H., & Eşim, İ. (2024). İç Turizmdeki Pandemi Etkisinin Kümelenme Analizi Kullanılarak İncelenmesi: Türkiye Örneği. *Anatolia: Turizm Araştırmaları Dergisi*, Cilt 35, Sayı 1, Güz: 60 - 73.

Zhang, S., Sun, T., & Lu, Y. (2023). The COVID-19 Pandemic and Tourists' Risk Perceptions: Tourism Policies' Mediating Role in Sustainable and Resilient Recovery in the New Normal. *Sustainability*, 15, 1323.

Zhao, X., Meo, M. S., Ibrahim, T. O., Aziz, N., & Nathaniel, S. P. (2023). Impact of Economic Policy Uncertainty and Pandemic Uncertainty on International Tourism: What do We Learn From COVID-19? *Evaluation Review*, Vol. 47(2) 320–349.

Zorlu, K., Tuncer, M., & Taşkın, G. A. (2023). The effect of COVID-19 on tourists' attitudes and travel intentions: an empirical study on camping/ glamping tourism in Turkey during COVID-19. *Journal of Hospitality and Tourism Insights*, Vol. 6 No. 2 pp. 947-965.

ŞEHİR VE BÖLGE PLANLAMADA İLERİ ARAŞTIRMALAR

yaz
yayınları

YAZ Yayınları
M.İhtisas OSB Mah. 4A Cad. No:3/3
İscehisar / AFYONKARAHİSAR
Tel : (0 531) 880 92 99
yazyayinlari@gmail.com • www.yazyayinlari.com