

REVIEW / DERLEME

A Review of the Environmental Sustainability History of the World and Turkey

Çevresel Sürdürülebilirliğin Dünya ve Türkiye'deki Tarihine Dair Bir İnceleme

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ABSTRACT

This study focuses on the recent past of the concept of sustainability, and one of its most important components, environmental sustainability which included our lives in the second half of the 20th century. Sustainable development was recognized internationally for the first time in 1987 as a general expression of the search for a balance among economy, society, and nature in terms of the resources with the principle of intergenerational equality. After this date, both Turkey and many other nations of the world provided various agreements and commitments on environmental sustainability related to their concerns for the common future. In this context, the aim of the study is to review the progress and the results of these various approaches. Turkey's history of environmental sustainability at both international and national levels has been examined in four periods. Periods are examined according to dominant sentiment, national period-specific characteristics, international treaties, legislative regulations, urban planning characteristics, and planning paradigm titles. It is found that both global and local goals have not been achieved yet, by this study which scrutinizes the recent history with almost 50 years to the present. The process that started with real problems and sensitivity in the practice continued with fashion and discursive expressions in times. It is understood that the sustainable urban environment, one of the main goals of urban planning has also turned into an ideal. Therefore, the steps that will be taken by Turkey within the environmental crisis period which have been experienced since 2010 are also supposed to determine the future of urban planning.

Keywords: Environmental sustainability; sustainable development; urban planning; Turkey.

ÖZ

Bu çalışmada 20. yy'ın ikinci yarısı ile birlikte hayatımıza giren sürdürülebilirlik kavramı ve onun en önemli bileşenlerinden olan çevresel sürdürülebilirlik olgusunun yakın geçmişine odaklanılmaktadır. Sürdürülebilir gelişme, nesillerarası eşitlik prensibi ile kaynakların kullanımında ekonomi, toplum ve doğa üçgeninde bir denge arayışının genel ifadesi olarak ilk defa 1987 yılında uluslararası olarak kabul görmüştür. Bu tarihten sonra hem Türkiye hem de diğer dünya devletleri ortak gelecek kaygısı ile çevresel sürdürülebilirlik alanında çeşitli anlaşmalar ve taahhütler vermişlerdir. Çalışmanın amacı; bu süreçlerin nasıl ilerlediği ve sonuçta uygulamaların nasıl olduğunu incelemektir. Türkiye'nin gerek uluslararası gerek ulusal ölçekteki sürdürülebilirlik geçmişi dört döneme ayrılarak incelenmiştir. Dönemler; döneme hakim düşünce, ulusal döneme özgü özellikler, uluslararası anlaşmalar, mevzuat düzenlemeleri, şehir planlama özellikleri ve planlama paradigmaları başlıklarına göre incelenmiştir. Günümüze kadar olan yaklaşık 50 yıllık yakın tarihe mercek tutan bu çalışma ile hem küresel hem de yerel hedeflere ulaşılmadığı görülmektedir. Gerçek sorunlar ve duyarlılık ile başlayan sürecin moda ve söylemsel ifadelerle devam ettiği, uygulamada karşılaşılan sorunlardan izlenebilmiştir. Kent planlamanın temel hedeflerinden olan sürdürülebilir kentsel çevrenin de bir ideale dönüştüğü görülmektedir. Dolayısıyla 2010 yılından itibaren yaşanan çevresel kriz sürecinde Türkiye'nin atacağı adımların kent planlamanın da geleceğini belirlemesi beklenmektedir.

Anahtar sözcükler: Çevresel sürdürülebilirlik; sürdürülebilir gelişme; şehir planlama; Türkiye.

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I. Introduction: Sustainability, Urban Planning and Current Realities

By 2017, 70 percent of all gross world products was produced in cities (U.N-Habitat, 2017). Geographically, cities cover only 2 percent of the globe yet consume nearly 70 percent of natural resources (U.N-Habitat, 2017). As the distribution of natural resources among countries is uneven, utilisation problems, both natural and human in origin, have developed over the years. Sustainability is an internationally used term that emerged at this very moment. The term sustainability describes a state where culture, politics, the economy and the environment exist in a balanced relationship that ensures sufficient natural resources for the future and conforms to the principle of inter-generational equity (U.N, 1987; Kuhlman & Farrington, 2010; James, 2015). Sustainability has been incorporated into urban planning agendas alongside rising awareness of environmental problems that began from the 1970s onwards. Sustainable approaches to city development have triggered massive changes to literature, experience, knowledge and communication technologies (Kidd, 1992; Hilty & Aebischer, 2015).

For a developing country such as Turkey, the organisation of urban space and the implementation of urban environmental sustainability are of particular importance. Internal factors effecting the organisation of urban space include population growth, development spurts, economic growth and urban development; external factors include changing global economic policies as well as international business collaborations and agreements. Cities in developing countries, with their complex social, economic and environmental components, present problems for urban development. However, they also hold the key to finding solutions, as well. Global approaches to the situation propose that legislative regulations designated according to locally adapted indicators offer monitoring, supervising and developing advantages to the countries, all at the same time (Hammond, Adriaanse, Rodenburg, Bryant & Woodward 1995; Hamilton & Clemens, 1999; Robert, Parris & Leiserowitz, 2005; U.N, 2007; Krausmann, Gingrich, Eisenmenger, Erb, Haberl & Fischer-Kowalski, 2009; Ferrao & Fernandez, 2013; James, 2015).

This study examines urban environmental sustainability within the context of sustainable development. For our analysis, we applied the perspectives of urban planning, a discipline which began in the 1970s and has progressed rapidly since the late 1980s. We researched the global historic phases which environmental sustainability has undergone. We also investigated the legal administrative changes, institutional transformations and policy implementation strategies that have accompanied the evolution of environmental sustainability in the case of Turkey. Considering the contexts of both a developing country like Turkey, as well as the globe, we aimed to determine

if environmental sustainability is still a goal or rather has become a concept or discourse with global unifying power that is based on agreements, policies, laws and regulations exerting influence on land usage.

2. Global Consciousness History of Environmental Sustainability

Modes of production and nature are locked into an ongoing and ceaseless relationship. As if there were infinite time, renewable sources of energy are seen as basic inputs under normal conditions; however, productivity and renewal fluctuate depending on the relationship between modes of production and nature.

With the rise of the ideology of liberalism, nature began to be seen as being characteristically self-referential from an economic point of view (Tok & Oğuz, 2013; Çoban, 2018). Environmental pollution problems that resulted from rapid industrialisation and urbanisation are evidence of this. During this period of industrialisation, the sustainability of the natural environment and resources was ignored. This approach had dramatic ecological and social consequences which affected the entire world (Jardins, 2006).

All the global economic crises that have accompanied capitalist modes of production and the spread of liberal and neoliberal ideologies also cause environmental crises (Keleş & Hamamcı, 1997; Demirer & Duran, 2000; Jardins, 2006; Kılınç, 2012). The petrol crisis in 1973, which occurred around the same time that debates surrounding sustainability first emerged, caused an economic and ecological crisis that benefitted capital.

The resource, energy and market problems of developed countries that had already progressed with the industrial revolution were integrated with 'ecological sensibility' to create an outlet. In the following years, protocols and contracts that were first made in the 1970s and 1980s were scrutinised in light of new environmental policies. As a result, polluting industries moved their industrial investments to underdeveloped or developing countries with cheap labour that had not signed such agreements, as the lack of regulation made it easy to interfere with their natural resource regimes (Mengi & Algan, 2003).

As environmental awareness began to spread in the 1970s, many economists came to agree that it was important to protect the environment; however, the circumstances under which this was to be done were contested (Keleş & Hamamcı, 1997; Anderson & Leal, 2001).

As developed countries agreed to mutual sanctions in order to ensure a sustainable environment, they began relocating

their polluting industries to less developed countries. Simultaneously, other industries began to grow while attracting attention and investment due to the influence of communication technologies. Following the championing of the theme of 'sustainable development' at the 1992 Rio Summit, further declarations and conventions, such as the Rio Declaration, Agenda 21, the Climate Change Convention, the Convention of Biological Diversity and The Statement of Forest Principles all emphasised the need for a global approach to sustainability and that all countries must pursue a common agenda (Kılınç, 2012; Yıkılmaz, 2016). It was declared that relocating industries would only delay inevitable problems.

Indeed, the 1990s can be described as a period during which local, regional and international solidarity and dialogue was achieved in an effort to solve environmental problems. The United Nations took the lead in global governance and formed the Commission on Sustainable Development. This commission publically declared that military, political, economic and environmental problems had to be tackled globally (Yıkılmaz, 2016). However, this also required the coordination and re-organisation of rules for nations. Due to countries' differing levels of development, bilateral trust mechanisms emerged as important tools for seeking mutually beneficial solutions. However, the sincerity of business association's commitment to sustainability was doubtful. For example, the Housing Development Administration of Turkey (TOKİ) was presented an award by the United Nations Human Settlements Programme. However, the award was given to TOKİ during a time (1999–2000) when the organisation was nearly inactive. Moreover, despite the recent earthquake disaster, the residential buildings built by TOKİ at this time were being put to use in a non-social model (Eşkinat, 2012). After receiving this award, in 1996 TOKİ sponsored the Habitat II Conference in Istanbul ("TOKİ Received the United Nations", 2018).

The Millennium Summit was held in New York in 2000 where the Millennium Development Goals were defined. The eight main topics of the declaration included the eradication of poverty and the fight against major diseases, as well as 'support for a sustainable environment' (U.N, 2017). In 2001, at the İstanbul +5 meeting, developments following the 1996 Habitat II Conference were evaluated and the Habitat Agenda was supported. At the Johannesburg World Summit on Sustainable Development in 2002, status reports concerning earlier agreements, future projects and suggested measures for preventing the further deterioration of the environment were discussed. Between 2000 and 2010, the issue of global environmental sustainability was neglected. Sustainability goals were framed as the responsibilities of individuals and societies rather than the responsibilities of governments. Awareness of environmental sustainability spread around the world and 'green' alternatives to everyday products, such as cosmetics

and textiles, were introduced, particularly in developing countries such as Turkey (Van Den Berg, 2016). This phenomenon was criticised in academic scholarship as 'greenwashing', a term which describes the exploitation of the vocabulary of 'a sustainable environment' as an advertisement tool by companies (Delmas & Burbano, 2011). The Sins of Greenwashing Study Report (2010) revealed that in just one year, firms promoting 'green, environmentally friendly, organic, [and] eco-friendly' products increased their sales by 75 percent. However, 95 percent of the products and services sold did not comply with sustainability requirements (TerraChoice, 2010).

Indeed, in the same period, 'greenwashing' also entered the lexicon of urban planning to describe processes of urban renewal, gentrification, and real estate development (Schuetze & Chelleri, 2016). Residential development focusing on energy efficiency as a facet of sustainable urban development is in the planning stages in developing countries (Schuetze & Chelleri, 2016; Parkin, 2015). However, at the end of these processes, cities are usually left with unsustainable trends, such as gentrification, disintegration and social injustice (Checker, 2011).

Therefore, sustainability discourse has engendered new forms of consumption that masks global truths (Larner & Walters, 2004; Gaffney, 2013).

The 2010s have been dominated by a sense of 'environmental crisis' with regard to urban environmental sustainability.

The Kyoto Protocol, which was signed within the United Nations Framework Convention on Climate Change, is the only international framework aimed at tackling global warming and climate change. It was ratified in 1997, but didn't come into effect until 2005. Although directly responsible for 25 percent of greenhouse gas emissions, in 2001 the United States refused to ratify the agreement, claiming that it was an attempt to hinder American economic development (Hovi, Sprinz & Bang, 2010). A total of 780 million litres of crude oil leaked into the Gulf of Mexico in 2010. Other countries with polluting industries have forgone signing this protocol. Similarly, when Canada was fined 14 billion dollars for not reaching its target emission rate, the Canadian government withdrew from the Kyoto Protocol ("BP Oil Spill Timeline", 2010; "Kanada Kyoto Protokolü'nden Çıktı", 2011).

Subsequently, the first supra-state global meetings and activities took place in 2012 at the Rio United Nations Conference and then again in 2016 at the Habitat III conference in Ecuador.

At these conferences, issues such as human settlement, human rights, natural resources, cities, urbanity, global warming, climate change and urban resilience were discussed and road maps were drawn for the future. However, the failures

of previous years and the lack of cooperation by main actors detracted from the credibility of efforts.

It was alleged that the World Bank was manipulating data on underdeveloped and developing countries against the OECD and the United Nations. A recent study that supports this thesis was conducted by Monash University in Malaysia (“Does The World Bank Have A Problem”, 2017). This report, which was published on 9 November 2017, criticised the claim that the World Bank reduced world poverty by 35 percent between 1990 and 2015. The World Bank published an apology on 13 January 2018 and accepted that they had politicised the data while promising that the indicators and values of the previous four years would be updated and presented objectively (“A World Bank Economist Apologized”, 2018).

Therefore, the issue of environmental sustainability emerged in the 1970s, affecting information, perception, sensibility, precaution policies and preparation for global cooperation. However, this issue has been perceived and experienced differently in recent years, particularly after 2010. Although environmental sustainability has been politicised by associations, institutions, organisations and national governments, it remains an important issue for urban planning.

3. Legal Administrative Periods of Change and The Development of Urban Environmental Sustainability in Turkey

Turkey has also been involved in international efforts to achieve sustainable development. The history of environmental sustainability in Turkey on both the international and national level can be divided into four periods (Tables 1–4) according to sustainable development approaches with economical, political and social transformations of the country.

These periods are further analysed according to the following six categories: dominant sentiment, national period-specific characteristics, international treaties, legislative regulations, urban planning characteristics and planning paradigm. Developments since 2010 are also given in detail.

It should be noted that 1980 was an important breaking point in the period until 1990. With the transition to neoliberal policies during this period, the concept of environment started to be seen as a part of market relations.

One of the important steps of environmental protection for Turkey is acquiring legitimacy of the Environmental Impact Assessment (EIA) process. The assessment was legitimized with the regulation that entered into force for the first time in 1993. However, this regulation has been completely amended 7 times in total from 1993 to 2020. Changes experienced

over time, especially Hydroelectric Power Plants (HEPPs) have been designed in a way that will destroy natural water resources and in large numbers. In particular, the practices made for the Black Sea Region, which is called green with its humid climate with 4 seasons of rainy weather, has been met with reaction from the public by the relevant non-governmental organizations and the society (“Karadeniz HES Kuşatmasında”, 2013). According to the data of the Ministry of Agriculture and Forestry, there are 203 completed, and also 143 planned plants are in the Black Sea Region (Ministry of Agriculture and Forestry, 2020).

According to the table summarizing the 1990–2000 period, the keyword can be described as privatization. As a summary of the privatization pressure on the environmental approaches of this period, we can evaluate the effects of multinational companies in the economy, the fact that the EIA report system has become contradictory before entering into force, putting on the market the beaches and coastline that are vital for the coastal ecosystem as well as the pastures.

In the period between the years 2000–2010, Turkey’s economic policy seems to be oriented with the concentration of construction-demolition activities in the construction sector. It is seen that autonomous decisions are made with mega projects and urban transformation projects, while environmental sustainability is not taken into consideration.

The fourth period spanning from 2010 to today can be referred to as a period of ‘environmental crisis’. During this period, the cumulative negative effects of policies from previous periods were debated on a national scale. Certain national legislative regulations were found to be associated with this crisis.

During this period, ‘environmental sustainability’ was seen as a goal to be achieved in the eyes of almost all local administrations. Likewise, their projects set out to ‘create a viable environment’. In this process that has no practical example and is theoretically more segmental, goal-oriented strategic approaches and ‘sustainable urban planning’ have found their place in the academic planning community.

In the 2010s, following obvious urban profiteering movements in large cities, decisions were made that had a direct impact on both large cities as well as other medium- and small-sized cities. The mega projects started at the beginning of 2000s and increased for İstanbul which is the biggest and the most crowded city in Turkey in this period. 78 mega projects have been produced since 2010 (Mega Projeler İstanbul, 2020). Many mega projects were decided by autonomously realized by the citizens and society through social media. There are national-scale projects such as the 3rd Bosphorus bridge and the 3rd airport, as well as a wide range of applications from the

Table I. Summary of Environmental Sustainability in Turkey until 1990

Dominant sentiment	Liberalisation
National period-specific characteristics	<ul style="list-style-type: none"> • Developing adaptation strategies for neoliberal economic policies • Downsizing of public services • Change in social production–consumption relations • Accepting environment as a part of market relations
International treaties	<ul style="list-style-type: none"> • 1971 The Ramsar Convention on Wetlands (Especially About Life Space of Waterbirds) • 1972 Paris Convention Concerning the Protection of the World Cultural and Natural Heritage • 1972 Stockholm United Nations Conference on the Human Environment Declaration • 1973 Washington (CITES) Convention on International Trade in Endangered Species of Wild Fauna and Flora Treaty • 1976 Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean Treaty • 1979 The Berne Convention on the Conservation of European Wildlife and Natural Habitats • 1985 Granada Convention for the Protection of the Architectural Heritage of Europe Treaty • 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal Treaties
Legislative regulations	<ul style="list-style-type: none"> • First two articles of 5-Year Development Plan spanning 1979 to 1983 (In all development plans afterward, environmental protection–usage balance was emphasised) • 1983 Environment law • 1983 Protection of Cultural and Natural Properties Law • In 1986, with the change made in Article 2 of Forest Law number 6831, areas to be left out of the forest boundary were defined. Also, as per Article 4, the ownership and management of areas that had lost their status as forests-excluding state-owned forests, public institution-owned forests and privately owned forests-were emphasised. • The land survey law took effect in 1987, establishing a land registry and creating a spatial information system for the country. • 1985 Construction law number 3194 (The term ‘sustainability’ was first used in regulations in 2013). Addition: 12/7/2013–6495/73)
Urban planning characteristics	<ul style="list-style-type: none"> • Transferring of planning power from the central administration to local administrations • Construction amnesty and validation planning came to the fore • Fragmented, project-based planning was adopted instead of long-term planning.
Planning paradigm	<ul style="list-style-type: none"> • Comprehensive planning, rational planning, advocative planning, communicative planning

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decisions that will directly affect the coastal ecosystem in the Bosphorus and the Marmara Sea, such as the Yenikapı fill area.

Neoliberal policies stagnated with the advent of the global crisis in 2008 (Demir, 2011). However, for Turkey, which was still a developing country, the construction sector benefited (Büyükduman, 2014), as moderate government policies touting ‘environment-themed’ approaches encouraged investment in this sector. In fact, all the practices implemented were credited as ‘environment’ consciousness.

Disaster management following the earthquake in Van in 2011 and a possible earthquake in Istanbul that could have devastating effects were discussed. When neoliberal economic policies were obstructed by the global economic crisis, Turkey was also affected. At this time, the reproduction of urban space was offered as a solution. Following the Transformation of Areas under the Risk of Disaster Law No 6306 being enacted in 2012 and construction activities starting in 2018, cities were transformed into ‘never-ending construction sites’. The scale of profiteering also changed alongside the reproduction of urban space.

Table 2. Summary of Environmental Sustainability in Turkey from 1990 to 2000

Dominant sentiment	Localisation/governance
National period-specific characteristics	<ul style="list-style-type: none"> Promotion of transition process with neoliberal reforms
International treaties	<ul style="list-style-type: none"> 1992 Valletta European Convention on the Protection of the Archaeological Heritage Treaty 1992 Rio Convention on Biological Diversity 1992 Rio United Nations Framework Convention on Climate Change Treaty 1992 Rio UN Statement of Forest Principles 1994 Paris Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa United Nations Treaty 1997 United Nations Framework Convention on Climate Change -Kyoto Protocol (accepted) 1998 Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters Treaty
Legislative regulations	<ul style="list-style-type: none"> 1993 Environmental Impact Evaluation Guide (which was legalised in 1983) enacted and published in official journal dated 07.02.1993 and numbered 21489. Environmental Impact Assessment Guide. This guide was completely changed seven times from 1993 to 2018 1994 Code of Privatization Implementations enacted, numbered 4046
Urban planning characteristics	<ul style="list-style-type: none"> Promotion of the localisation of governance; local administrations create initiatives for this purpose Rapid privatisation of basic public services and questioning of the necessity of basic planning principles Following the allocation of property owned by the treasury to multinational corporations in accordance with national interests by direct sale, renting and tourism is promoted, particularly secondary residences and tourism facilities. The effects of this are directly felt, particularly in the coastal ecosystem Within this framework, an action-focused strategic planning approach is adopted
Planning paradigm	<ul style="list-style-type: none"> Participatory planning dilemma

According to the table summarizing the 1990–2000 period, the keyword can be described as privatization. As a summary of the environmental approaches of this period, we can evaluate the effects of multinational companies in the economy, the fact that the EIA report system has become contradictory before entering into force, putting on the market the beaches and coastline that are vital for the coastal ecosystem as well as the pastures.

According to the Finance Ministry General Directorate of National Estate (Finance Ministry General Directorate of National Estate, 2012) and newspaper articles of the period (“Hangi İlde Ne Kadar 2B”, 2012), an area of 160.000 ha lost its forest status as per the Promotion of Development of Forest Villagers and Utilization of Areas Taken out of Forest Borders and Sale of Agricultural Estates Owned by Treasury Law, known as 2B colloquially.

Following the enactment of law no 6360 in 2012, metropolitan borders were extended to encompass the provinces and county municipalities and villages lost their statuses as legal entities and were turned into neighbourhoods of the counties they belonged to. Rural areas lost their characteristic bucolic features because of economic livelihood concerns. Therefore, the loss of fertile land (agricultural, watershed, forest areas, etc.) was legitimatised, and neoliberalism expanded urban space and increased the area of land to be exploited by capital.

Speculations about the protected areas that had started two years earlier were legalised with the enactment of ‘Regulations on Change of The Regulation on Planning in The Protected Areas’. According to this regulation, grade one natural sites were turned into qualified natural reserves and sustainably protected and controlled usage areas. Grade two and three natural sites were turned into sustainably protected and controlled usage areas. These protection–usage regulations applied regardless of conservation development plans. When no plans existed, usage conditions were amended to be confirmed until the necessary plans were made with the Ministry of Environment and Urbanisation. The right to extend the period also applies unless a conservation development plan is made. At this stage, it is obvious that the legal basis for protected areas to be zoned for construction has been established.

The Environmental Performance Index (EPI) is an evaluation matrix that is recognised by the international community and reviewed by academic institutions at Yale University and

Table 3. Summary of Environmental Sustainability in Turkey from 2000 to 2010

Dominant sentiment	Urban profiteering
National period-specific characteristics	<ul style="list-style-type: none"> Capital-focused policies regulated by public are adopted
International treaties	<ul style="list-style-type: none"> 2000 Florence European Landscape Convention Treaty 2005 United Nations Framework Convention on Climate Change -Kyoto Protocol (came into force after being accepted by the Turkish Grand National Assembly in 2008) 2009 Cartagena Protocol on Biosafety
Legal regulations	<ul style="list-style-type: none"> 2004 Municipal law number 5216 2005 Municipal law number 5393 2005 Provincial special administration law number 5302 2005 Local administrative unions law
Urban planning characteristics	<ul style="list-style-type: none"> Local-central administrative relations are reshaped with legislation Regulation of responsibilities of local administrations and the extension of financial management, investment and privatisation authority to local administrations Intensification of spatial consumption. This period is known as a period of national and global crisis. Discussions on sustainable urban planning held. Spatial planning decisions that came from central government intensify, particularly in Istanbul, with mega projects Extreme increase in number of urban transformation projects by legal regulations. This situation triggered the development of a construction based industry in the country Active participation of many non-governmental, environmental and citizens' rights organisations in the briefing processes enabled by the prevalence of information technologies
Planning paradigm	<ul style="list-style-type: none"> Planning shaped by autonomous decisions

In the period between the years 2000–2010, Turkey's economic policy seems to be oriented with the concentration of construction-demolition activities in the construction sector. It is seen that autonomous decisions are made with mega projects and urban transformation projects, while environmental sustainability is not taken into consideration.

Columbia University. As of 2018, the indicators used to rank countries are grouped under two main categories. The category of 'ensuring environmental health' is weighted at 40 percent, whereas the category of 'ensuring environmental health' is weighted at 60 percent. The index includes parameters measuring agricultural land, forest area, water sources, biodiversity, air pollution, climate and energy indicators, as well as 24 sub-parameters. According to reports published every two years since 2002, the EPI of Turkey ranks the following when examined from 2010 till today: in 2010, it was 77th among 163 countries; in 2012, it was 109th among 132 countries; in 2014, it was 66th among 178 countries; and in 2016, it was 99th among 180 countries. According to the report prepared for 2018, Turkey has fallen to 108th position among 180 countries (EPI, 2018).

4. In Conclusion: Discussions about the Future of Sustainability in Terms of The World and Turkey

Environmental sustainability, one of the components of the concept of sustainability, has taken its place in the world

agenda with the environmental problems experienced since the second half of the 20th century. The answers have been sought for how to experience balance in terms of the use of social and environmental resources while developing economically since the 1970s.

Integrated solutions with common sense have been sought by international associations, institutions and organizations with many contracts and agreements. However, when the development of commitments and results in the historical process is examined, it is seen that progress has been made, but the goals have not been achieved.

When the findings obtained from the literature review are interpreted, it is seen that the concept of sustainability has gained a "discursive" dimension as of the 2000s. Environmental sensitivity has decreased globally compared to previous decades, and fashion discourses and environmental awareness have changed the format as the responsibility of individuals. High-polluting countries such as the U.S.A or China which exert the most pressure on the ecosystem have not

Table 4. Summary of Environmental Sustainability in Turkey from 2010 to Present

Dominant sentiment	Localisation/governance
National period-specific characteristics	<ul style="list-style-type: none"> Continuation of neoliberal policies which are initiated and regulated by public
International treaties	<ul style="list-style-type: none"> 2012 Rio+20 UN Conference on Sustainable Development 2015 Agenda 2030: UN Sustainable Development Goals 2016 Paris UN Climate Change Framework Treaty
Legislative regulations	<ul style="list-style-type: none"> In 2011, the name of the Ministry of Public Works and Settlement was changed to the Ministry of Environment and Urbanisation With pieces of legislation numbered 644 and 648, the Environmental Impact Assessment, the Directorate General of Environmental Impact Assessment, and the Permit and Inspection acts were made law. The duties and area of responsibility were revised and all actors with responsibilities in areas of urban planning were divided into various sub-directorates according to their area of specialisation Conversion of Areas Under Risk of Disaster Law enacted in 2012, number 6306 Promotion of Development of Forest Villagers and Utilization of Areas Taken out of Forest Borders and Sale of Agricultural Estates Owned by Treasury Law (2B) enacted in 2012, number 6292 Following the enactment of law number 6360 in 2012, metropolitan borders were extended to provincial borders, and county municipalities and villages lost their status as legal entities and were converted into neighbourhoods of the counties they belonged to Enacted in the official journal, dated 06.12.2016, the 'Guideline about changing the regulation of planning in the protected areas' changed the definition, status and protection–usage requirements of protected sites
Urban planning characteristics	<ul style="list-style-type: none"> Sustainable urban planning approach with strategic treatment Increase in the number and scale of mega projects that began with autonomous decisions Gentrification movements that started with disaster management Sale of areas labelled degraded forest land (2B) Town municipalities and villages lose their legal status and turn into neighbourhoods The new regulations generate large urban projects versus metropolitan master plan Rising influence of the central government on the spatial planning process
Planning paradigm	<ul style="list-style-type: none"> Planning that loses power, control and supervision

taken responsibility for this situation. Other countries such as Canada are willing to take responsibility but are punished for not fulfilling all of their commitments. As a result, certain countries terminate some treaties for sustainable development. Therefore, in spite of communal efforts concerning these issues, it is becoming less likely that the international community will meet its global sustainability targets.

Referring to the situation in Turkey was determined to follow a parallel process with the world. Global occurring sensitivity has affected Turkey. With the effect of liberalization after 1980, a sensitivity attitude was displayed as a party to agreements with international sanctions on the environment. However, the change in the welfare state understanding in

the 1970s was also reflected in the planning approaches, and the long-term planning approach has changed. In the 1990s, laws, regulations, etc. regulated on a national scale gave rise to zoning pressure on the natural values with the aid of fragmented planning approaches and participatory planning dilemma in this period. Thus, the effects of zoning pressure significantly on environmental sustainability have been experienced by Turkey. In the 2000s, while the sensitivity on societies was increased with individualistic approaches that continued in coordination with the world, autonomous decisions and irreversible large-scale projects on nature were implemented, especially in the metropolitan cities, and the negative effects on the environment were ignored by the relevant authorities. The years of 2010 have been defined as

a period of crisis for environmental sustainability both in the world and in our country. One of the most striking examples of this period that even the most reliable organizations such as the World Bank are able to manipulate the data included in the sustainability indexes. It admitted the manipulation for some data about poverty and other categories for the developing countries from 1990 to 2015. At the time of economic crisis or natural disaster, environmental problems were further deepened at a time by referrals made to the construction sector in Turkey. The law on the transformation of towns and villages into neighborhoods, the law on urban transformation for disaster mitigation, the law amendment on the definition and use of protected areas are the most striking examples as a series of legal regulations made to support the construction sector. In this context, the differences between the goals and the results of applications through the sustainable environmental approach can be defined as contradictory for both Turkey and other states in the world. On the level of both national and international organisations, institutions and agreements, the conservation–usage balance of the ‘environment’, which is one of the cornerstones of sustainable development, is in jeopardy.

The urban environment is part of a global ecosystem cycle with its biotic, abiotic, technical, and physical layers. Therefore, land usage policies and laws that regulate urban planning are becoming increasingly important. Turkey is currently a country developing in the direction of unattained goals, and the steps that the country takes in the direction of sustainability or non-sustainability will determine the course of its urban planning.

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References

- A World Bank economist apologized. (2018, January 13). Retrieved from <https://qz.com/1179239/world-bank-doing-business-ranking-chief-economist-paul-romer-apologizes-for-unfair-results/>
- Anderson, T.L., & Leal, D.R. (2001). Rethinking the way we think. in: free market environmentalism. New York: Palgrave Macmillan.
- Büyükduman, A. (2014). Bir kent efsanesi konut balonu. İstanbul: Scala Press.
- BP oil spill timeline. (2010, July 22). Retrieved from <https://www.theguardian.com/environment/2010/jun/29/bp-oil-spill-timeline-deepwater-horizon>
- Checker, M. (2011). Wiped out by the “greenwave”: environmental gentrification and the paradoxical politics of urban sustainability. *City and Society*, (23),210–229.
- Çoban, A. (2018). Doğanın metalaştırılması. *Toplum ve Bilim*, (123),209-241
- Does the World Bank have a problem. (2017, November 09). Retrieved from <https://lens.monash.edu/@business-economy/2017/11/09/1257471/does-the-world-bank-have-a-problem-with-its-poverty-figures>
- Delmas, A., & Burbano, V. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64–87.
- Demir, G. (2011). Post neoliberalizm? kriz ve sonrası üzerine. *The Journal of Marmara Social Research*, December(1), 1-20.
- Demirer, G., & Duran, M. (2000). Marksist ekoloji anlayışı üzerine. M. Duran, G. Demirer and G. Özgür (Ed.), in *Marksizm ve Ekoloji* (pp.180-183). İstanbul: Öteki Press.
- Dresner, S. (2008). *The principles of sustainability* (2nd ed.). London: Routledge.
- EPI (Environmental Performance Index). (2018, May 01). Retrieved from <https://epi.envirocenter.yale.edu/epi-topline>
- Eşkinat, R. (2012). Türk inşaat sektöründe TOKİ'nin yeri ve etkisi. *Dumlupınar University Journal Of Social Sciences*, 2(32), 159-172.
- Ferrao, P., & Fernandez, J. (2013). *Green urban policies and development in sustainable urban metabolism*. Cambridge: MIT Press.
- Gaffney, H. (2013). Between discourse and reality: the un-sustainability of mega event planning. *Sustainability*, (5), 3926- 3940
- Hangi ilde ne kadar 2B. (2012, May 7). Retrieved from <https://www.sabah.com.tr/ekonomi/2012/05/07/hangi-ilde-ne-kadar-2b-var>
- Hamilton, K., & Clemens, M. (1999). Genuine savings rates in developing countries. *The World Bank Economic Review*, 13 (2), 336-356.
- Hammond, A., Adriaanse, A., Rodenburg, E., Bryant, D., & Woodward, R. (1995). *Environmental indicators: a systematic approach to measuring and reporting on environmental policy performance in the context of sustainable development*. World Resources Institute Press. Retrieved from http://pdf.wri.org/environmentalindicators_bw.pdf
- Hilty, L.M., & Aebischer, B. (2015). ICT for sustainability: an emerging research field. L.M. Hilty, B. Aebischer (Ed.), in *ICT innovations for sustainability advances in intelligent systems and computing*, Heidelberg: Springer International Publishing.
- Hovi, J., Sprinz, D., & Bang G. (2010). Why The United States did not become a party to The Kyoto Protocol: German, Norwegian, and US perspectives. *European Journal of International Relations*, 18(1), 129–150
- James, P. (2015). *Urban sustainability in theory and practice: circles of sustainability*. London: Routledge Press.
- Jardins, R. J. (2006). Çevre Etiği. (Translation R. Keleş). Ankara: İmge Press.
- Kanada Kyoto Protokolü'nden çıktı. (2011, December 13). Retrieved from <http://tr.euronews.com/2011/12/13/kanada-kyoto-protokolunden-cikti>
- Keleş, R., & Hamamcı, C. (1997). Çevrebilim. Ankara: İmge Press.
- Kılınç, A. (2012). Neoliberalizm bağlamında sürdürülebilir kalkınmanın merkez ve çevre ülkeler açısından değerlendirilmesi. *Afyon Kocatepe University İİBF Journal*, 14(1), 147-161.

- Kidd, C.V. (1992). The evolution of sustainability. *Journal of Agricultural and Environmental Ethics*, 5(1), 1-26.
- Krausmann, F., Gingrich, S., Eisenmenger, N., Erb, K., H., Haberl, H., & Fischer-Kowalski, M. (2009). Growth in global materials use, GDP and population during the 20th century. *Ecological Economics*, 68(10), 2696-2705.
- Kuhlman, T., & Farrington, J. (2010). What is sustainability? *Sustainability*, 2(11), 3436-3448.
- Larner, W., & Walters, W. (2004). *Global governmentality governing international spaces*. London: Routledge.
- Mega Projeler İstanbul, (2020). Retrieved from <https://megaprojeleristanbul.com/#>
- Mengi, A., & Algan, N. (2003). *Küreselleşme ve yerelleşme çağında bölgesel sürdürülebilir gelişme*. Ankara: Siyasal Press.
- Ministry of Finance Directorate General of National Property. (2012). Annual report. Retrieved from http://kurumsal.milliemlak.gov.tr/Faaliyet%20Raporlar/2012_YILI_MILE_FAALIYET_RAPORU.pdf
- Ministry of Agriculture and Forestry. (2020). Retrieved from <https://www.tarimorman.gov.tr/>
- Parkin, S. (2015). Contexts and drivers for operationalizing sustainable development. In *Proceedings of the ICE-Civil Engineering*. (pp.9-15), London: Thomas Telford Ltd.
- Robert, K. W., Parris, T. M., & Leiserowitz, A. A. (2005). What is sustainable development? Goals, indicators, values, and practice, environment. *Science and Policy for Sustainable Development*, 47(3), 8-21.
- Schuetz, T., & Chelleri, L. (2016). Urban sustainability versus green-washing-fallacy and reality of urban regeneration in Downtown Seoul. *Sustainability*, 8(33), 1-14.
- TerraChoice. (2010). *The Sins of Greenwashing Home and Family Edition*. Retrieved from <http://sinsofgreenwashing.com/index35c6.pdf>
- Karadeniz HES kuşatmasında. (2013, October 17). Retrieved from <https://www.hurriyet.com.tr/gundem/karadeniz-hes-kusatmasinda-24931846>
- Tok, E., & Oğuz, M. (2013). Manifestations of neoliberal urbanisation: The case of Sulukule/Istanbul. *Planlama*, 23(2), 57-66.
- TOKİ received The United Nations. (2018, March 28). Retrieved from <http://www.toki.gov.tr/en/international-experience.html>
- U.N (United Nations). (1987). *Report of the World Commission on environment and development: Our common future*. Oslo: U.N Press.
- U.N (United Nations). (2007). *Indicators of Sustainable Development: Guidelines and Methodologies*, October 2007 Third Edition, Retrieved from <http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf>
- U.N (United Nations) - Habitat. *Global Activities Report*. (2017). Retrieved from <https://unhabitat.org/global-activities-report-2017/>
- U.N (United Nations). *New Urban Agenda*. (2017). Retrieved from <http://habitat3.org/wp-content/uploads/NUA-English.pdf>
- Van Den Berg, K. (2016). Neoliberal sustainability? The biopolitical dynamics of "green" capitalism, global governance/politics, Retrieved from https://www.iss.nl/sites/corporate/files/31-ICAS_CP_van_der_Berg.pdf
- WWF (World Wildlife Fund). (2014). *Living planet report*. Retrieved from https://www.wwf.or.jp/activities/data/WWF_LPR_2014.pdf
- Yıkılmaz, N. (2016). *Yeni dünya düzeni ve çevre*. İstanbul: Umay Press.