TÜRKİYE'S GREEN DEVELOPMENT INITIATIVE

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ABBREVIATIONS

EU: European Union
R&D: Research and Development
ITS: Intelligent Transport Systems
UN: United Nations
UNFCCC: United Nations Framework Convention on Climate Change
CDM: Clean Development Mechanism
COP: Conference of the Parties
CRED: Centre for Research on the Epidemiology of Disasters
eq: Equivalent
GDP: Gross Domestic Product
ILO: International Labour Organization
MLF: Multilateral Fund
MOP: Montreal Protocol
OECD: Organisation for Economic Co-operation and Development
OIZ: Organized Industrial Zone
TfSD: Tools for Sustainable Development
GNAT: Grand National Assembly of Türkiye
FTE: Full-Time Equivalent
UNEP: United Nations Environment Programme
UNFCCC: United Nations Framework Convention on Climate Change
LCCAP: Local Climate Change Action Plan
WIM: Warsaw International Mechanism
WMO: World Meteorological Organization

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Introduction

The fact that Western civilisation has seen nature as a commodity that should be dominated from the industrial revolution on has left us confronted with environmental disasters today. This approach, which disregards the air, water, and soil in favour of increased production and profits, is gradually transforming our world into an uninhabitable place. Natural disasters experienced in recent years have demonstrated that countries that disregarded green development principles endanger not only themselves but also the whole humanity. At this point, there is obviously a need for a new roadmap that cherishes and prioritises the environment over economic gain.

As members of a civilisation that teaches "Plant a tree, even if it is your last deed," our country places a premium on environmental protection. An economic model that prioritises growth at the expense of nature is incompatible with our nation's faith and culture. Since 2002, we have viewed development through this

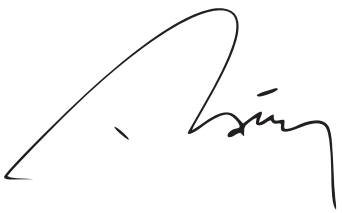
lens as a comprehensive transformation process that includes social, technological, institutional, and environmental dimensions alongside economic growth. We have not strayed away from our sustainable development goals, which include ensuring equitable income distribution, increasing employment, and supporting disadvantaged segments of society while steering the Turkish economy to the highest growth rates in its history.

Furthermore, we have made remarkable progress in areas such as renewable energy, waste management, and forest expansion. As a result of the "Zero Waste" project, the most significant step we have taken in waste management, we have embarked on a new era in terms of environmental protection and recycling awareness among our citizens. By ratifying the Paris Climate Agreement in September, we effectively crowned all the environmental projects we have undertaken over the last 19 years.

In adapting to the Paris Climate Agreement, Türkiye has committed to achieving net-zero emission by 2053. Accordingly, significant steps will be taken to attain the zero emission goal, which entails bringing greenhouse gases emitted by fossil fuels on par with those absorbed and eliminated by oceans and green areas. The electrical design we employed in the production of our first domestic car, our breakthroughs in renewable technologies, as well as our incentives for smart buildings and cities all epitomise our preferences in this direction.

Climate change demonstrates how justified our country is in objecting to the inequities in the global leadership system. It is essential that the fight against the climate crisis, which is the shared problem of the whole humanity, is conducted on the basis of global cooperation and solidarity as well. Developed countries, which have exacerbated climate change due to their economic policies to date, should assume more liability in this process. Otherwise, new injustices and inequities will inevitably be experienced.

Türkiye lends sincere support to the fight against climate change, although our historical responsibility for the current state of affairs is minuscule. We believe that humanity has now reached a crossroads in the fight against climate change. It has become more of an obligation than a need for humanity to act with an approach that respects the rights on the environment of both our children and all living things on earth. Inspired by its long-standing culture, Türkiye is determined to assume a leading and effective role in resolving the climate crisis in the upcoming period by placing the Green Development Initiative at the centre of all its efforts.



PRESIDENT OF THE REPUBLIC OF TÜRKİYE
RECEP TAYYİP ERDOĞAN

Preface

Türkiye has always viewed and implemented development as the accomplishment of structural transformations in social, technological, institutional and environmental fields in addition to economic growth. All of the policies we have put in place demonstrate the importance we place on both qualitative and quantitative change. Since 2002, our perspective on our nation's overall development has enabled us to focus on goals such as distributing national income equitably, increasing employment, and introducing innovative economic initiatives. Additionally, the introduction of climate change measures, which we regard as one of the world's greatest challenges, is an essential component of these policies.

Our experience in government over the last two decades has enabled us to focus not only on national and regional issues but also on international ones. It has never been consistent with Türkiye's historical perspective and mission to be isolated in its region and remain silent on international issues. Thus, under the leadership of our President, Türkiye has taken a position

that allows it best to observe and object to the unjust structure in the world. As international crises such as climate change have demonstrated, this corrupt system has existed for many years. The economic, political, and environmental aspects of it are no longer sustainable because this unjust system has turned not only countries and people into enemies to be exploited and fought against but also nature. Without regard for the air, water, and soil, the pursuit of growth gradually renders the world uninhabitable. It is now clear that the world can no longer view nature as an enemy. Integrating into a low-carbon economy in order to build a sustainable and inclusive global economy has become a red line for the world.

Türkiye supports international agreements, particularly the Paris Agreement, and we believe that all nations should unite to combat the global climate crisis, which is a global issue. Protecting green spaces has never been viewed as a concession made at the expense of development but as a form of development that will pay off in the long run by protecting nature. Countries that do not adopt green development principles for their short-term interests will harm not only themselves but also the world. Türkiye will prepare and implement all our medium and long-term development programmes and practices under the guidance of the structural transformation required by the green development initiative. This choice is not a luxury, a loss or a concession for us; rather, it will serve as a road map for us to start planning for the future today. We have already made significant progress in this regard through our efforts to increase renewable energy, improve waste management and expand forests in particular. We have advanced to a higher level in terms of both protecting nature and raising awareness about recycling and circular economy with our 'Zero Waste' project under the leadership of HE Emine Erdoğan.

Committed to reducing its emissions to net-zero by 2053 under the Paris Agreement adaptation process, Türkiye will not re-

main silent on climate change, which poses a threat to the future of humanity; on the contrary, it will take the lead. Türkiye has already been left in the lurch in its efforts to combat irregular migration, particularly in Syria.While the world is on the verge of mass migrations due to climate change, it is unthinkable for Türkiye to stay out of the fray.

Climate change has become a tangible indicator of how accurate our country's political vision of "a fairer world is possible" to injustices in the global management system is. As with all other issues, we will also be on the side of those who are oppressed and suffering in the case of climate change. We will stand firm against injustice and unfairness regarding the consequences of climate change, just as we have in the face of colonialism, terrorism, and other forms of discrimination. In addition, Türkiye will also set an example for the rest of the world by presenting Green Development as a people-centred development vision.

The book in your hands is a document that outlines Türkiye's vision for green development in all of its facets. I believe that the green development initiative will be a watershed moment in our county's modernisation. Along with structural reforms that will be implemented in the near future, Türkiye will take strategic steps towards a more liveable world and play a pioneering role in this field.

PROF. FAHRETTİN ALTUN
PRESIDENCY OF THE REPUBLIC OF TÜRKİYE DIRECTOR OF COMMUNICATIONS

01

INTERNATIONAL PROCESSES AND SUSTAINABLE DEVELOPMENT

01
INTERNATIONAL PROCESSES AND SUSTAINABLE DEVELOPMENT

Humanity has disrupted the ecological balance on its path to civilization by making interventions in its favour. These interventions, which started with the invention of fire, gained momentum with the industrial revolution and has become a significant problem with today's consumption frenzy and unjust world order. Human needs have become more diverse as civilisation developed, and their desires and needs have become limitless. However, it is clear that the resources required for unlimited wants and needs are not equally infinite.

Particularly in the mid-twentieth century, societies became aware of some problems in their relationships with their environment. People began to voice it through initiatives made at both international and national levels that this relationship of dominance between nature and humans should be reorganised, and that the resources of the world are limited and that this world, which future generations have entrusted to us, should be protected. The increase in environmental problems, as well as the nature of these problems, has revealed that the struggle against environmental problems cannot be sustained on an individual and national level, and it is possible to seek solutions with global awareness and solidarity.

The first steps of this struggle from a global perspective have been included in the declarations prepared at the environmental conferences organised under the leadership of the United Nations, in the international agreements, and the national strategies of the countries.

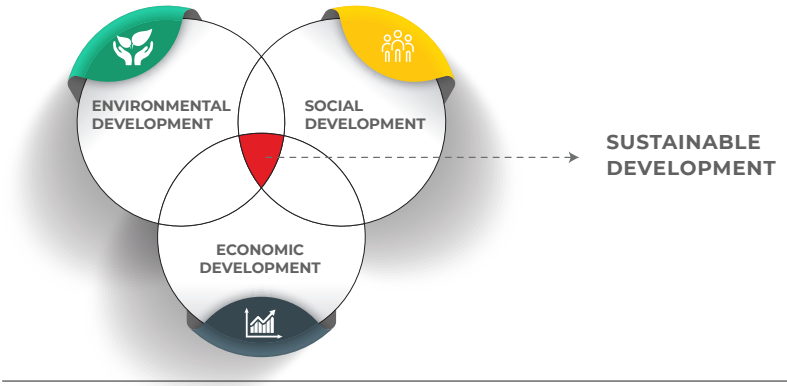
Sustainable development, or to put it more clearly, continuous and balanced development, is based on the idea of meeting the needs of today and developing without compromising the ability of future generations to meet their own needs. At the heart of the concept of sustainable development is the idea of meeting everyone's basic needs and improving their life expectancy while also protecting the resources of future generations.

United Nations Conference on the Human Environment, known as the ***Stockholm Conference***, convened in Stockholm on June 5, 1972, and was held with the participation of 113 countries, including Türkiye. At the end of this conference, international cooperation and solidarity were emphasised by addressing the adverse effects of human activities on the environment, the economic development problems of countries, the improvement of living conditions, the relevant international law and organisations. Following the Stockholm Conference in 1972, the United Nations established the United Nations Environment Program (UNEP) to manage environmental affairs directly.

The United Nations General Assembly established the World Commission on Environment and Development in 1983, and Gro Harlem Brundtland was tasked with developing the global agenda for the change. The concept of sustainable development, which is currently regarded as the most effective tool for resolving environmental problems, was incorporated for the first time in 1987 in this report titled "***Our Common Future***," also known as the Brundtland Report. The report covers a range of issues, including steering environmental concerns, ensuring cooperation among countries at various stages of economic development, establishing a common goal by con-

sidering the human-resource relationship in the context of environment-development, and determining long-term environmental strategies. This report also emphasizes the need of planning for the future, protecting future generations' interests, and taking the necessary precautions. This report recognises resource constraints and proposes a new concept of development as balanced and continuous development, which differs from the current situation.

Figure 1: Sustainable Development



Between May 14-16, 1990, the United Nations and the Economic Commission for Europe held a regional conference in Bergen called "***Action for a Common Future***." At the end of the meeting, the "Bergen Ministerial Declaration on Sustainable Development" was published. After identifying environmental threats in the declaration, a process based on international collaboration was proposed for sustainable development economy, energy consumption, industrial activities, raising environmental awareness and public involvement, and ensuring sustainability.

The ***UN Conference on Environment and Development (Rio Conference)***, held in Rio de Janeiro between June 3-14, 1992, was a significant step in establishing a set of principles for nations to adopt environmentally responsible governance practices. In addition to Agenda 21, which was originally an

action plan, the Rio Declaration and the Forest Principles were adopted in this framework. Furthermore, the UN Framework Convention on Climate Change and the UN Convention on Biological Diversity were opened for signature during the Conference. The UN Convention to Combat Desertification, prepared in line with the decisions taken at the Rio Conference, was opened for signature in 1994.

The ***Millennium Declaration*** and ***Millennium Development Goals***, which established a universal framework for development, were adopted by governments at the ***United Nations Millennium Summit*** in 2000 and had a target date of 2015, are widely recognised as a tool that enables developing countries to collaborate with developed countries for our common future. As part of ensuring environmental sustainability, the Millennium Development Goals include harmonising sustainable development principles with national policies and programmes, reversing environmental resource losses, reducing biodiversity loss, and halving the number of people who cannot sustainably access safe drinking water.

Between August 26 and September 4, 2002, the "***World Sustainable Development Summit"*** was held in Johannesburg to follow up on the outcomes of the Rio Conference and to harmonise countries' and relevant stakeholders' efforts towards achieving the Millennium Development Goals.

As a follow-up to these efforts, the ***United Nations Conference on Sustainable Development (Rio+20)*** was held in Rio de Janeiro on June 20-22, 2012, 20 years after the 1992 Rio Conference. The Rio+20 Summit resulted in the adoption of a final document titled ***"The Future We Want"*** as a roadmap for development. Furthermore, ***green economy*** modelling was discussed as a significant agenda item at this conference. The ***green economy*** modelling was proposed as an economic model to achieve sustainable development.

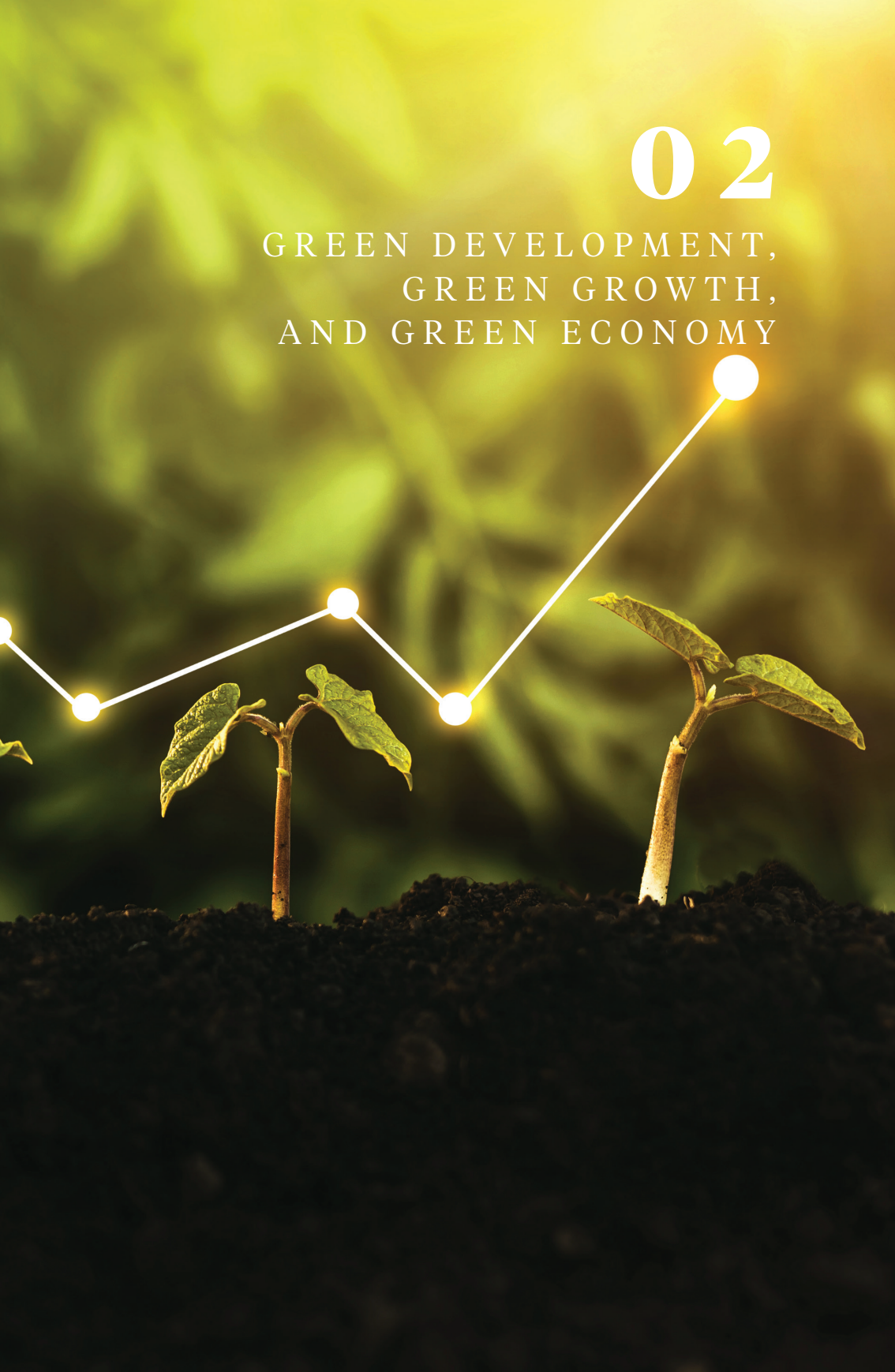
On September 27, 2015, the ***2030 Agenda for Sustainable***

Development was adopted in New York. The UN Sustainable Development Goals, which succeed the Millennium Development Goals, comprise 17 goals and 169 targets. Eradicating extreme poverty, combating inequality and injustice, and reversing climate change were adopted as the three key frameworks for these goals. By establishing a new global development framework with the 2030 Agenda for Sustainable Development, environmental challenges such as sustainable cities, climate change, combatting drought and biodiversity conservation were incorporated into the sustainable development agenda.

Figure 2: Global Goals for Sustainable Development

02

GREEN DEVELOPMENT, GREEN GROWTH, AND GREEN ECONOMY



02
GREEN DEVELOPMENT, GREEN GROWTH, AND GREEN ECONOMY

While the term "sustainable development" is commonly used today, it remains a contentious topic. The string of adverse environmental, economic, and social events that began in the twenty-first century demonstrated the necessity for a restructured approach to sustainable development. It has introduced concepts such as green growth, green economy, low-carbon economy, sustainable production and consumption that should be assessed within the context of sustainable development. Sustainable development will continue to thrive as a result of this restructuring, but with a new impetus. The ***green growth*** phenomenon, which emerged in the Asia-Pacific region in 2005, will offer this impetus. Although the concept of green growth emerged in 2005, it was the 2008 economic crisis that popularised it. Due to its social, ecological, and economic dimensions, this crisis was labelled a triple crisis. There were articulated and accepted views that the green new order would be essential in resolving the crisis. Indeed, the ***green order*** was not restricted to political circles and green economists but was also promoted as a way out of the crisis by the United Nations Environment Programme (UNEP). The UNEP and OECD advocate prioritising invest-

ment in and consumption of goods and services that contribute to environmental improvement in terms of green growth. Environmental sustainability, economic development, income growth, employment, and poverty alleviation are all included as its outputs. The European Union likewise maintains that sustainable production, consumption, energy efficiency, the use of renewable energy, and the creation of new job opportunities under the ***green economy*** are all inextricably linked to boosting human welfare. However, international consensus on the green economy concept is lacking. On the other hand, green growth arises as a result of the formulation of three fundamental imperatives. These include sustainable development, an economic policy, and the fact that the current economic system is unsustainable and inefficient in resource consumption. As of today, the concepts of sustainable development and green growth make sense when they are used in conjunction.

Green growth is promoted as a model for implementing sustainable development because it is viewed as a way out, a method to find a solution, and a route out of the economic, social, and ecological crisis into which all countries have descended. Clearly, sustainable development and green growth are two separate concepts. The primary distinction between these two cases is that green growth omits the social component of sustainable development. While sustainable development is a concept, a way of thinking, a point of view, and a goal to be reached with a general emphasis, green growth is one of the means of the desired outcome. Hence, green growth is not a phenomenon replacing sustainable development or a concept defining sustainable development. It is an approach that argues that sustainability can be achieved by the correct functioning of the economy. The concept of ***green growth*** aims to ensure economic development by highlighting environmental investments and thus encourages sustain-

ability. Green growth basically focuses on the dimensions of sustainable development that protect and prioritise green. Green growth focuses on establishing the circumstances for innovation, investment, and competition that can result in the creation of new resources for economic growth, as well as the economic opportunities that result from creating a green-based economy. Green growth itself is seen as a path for achieving sustainable development.

The financial crisis in 2008 and the environmental crises compelled governments to take more comprehensive measures on the environment and seek a new economic model. The "***Green Economy Initiative***" was launched by the United Nations Environment Program (UNEP) in 2008, which included proposals for poverty reduction, green investments and green transformation. In 2009, these efforts culminated in a green-based restructuring strategy with the publication of UNEP's "***Green New Deal - Policy Brief***".

With this new model, "Green New Deal", which incorporates green economy with Keynesian economics, a restructuring model based on the green economy was established. ***Green New Deal*** includes financial, sectoral, national and international regulations covering the elimination of ecological risks, ensuring sustainability and increasing employment. Green Economy is not only an approach that offers solutions to environmental problems but a far larger concept that considers nature and all living things in nature as an element of value. The green economy is regarded as a renewable, equitable and lucrative economic model that strives to reduce reliance on fossil resources, minimise the effects of the ecosystem, promote social equality and fair distribution of wealth, and maintain socioeconomic welfare for all people.

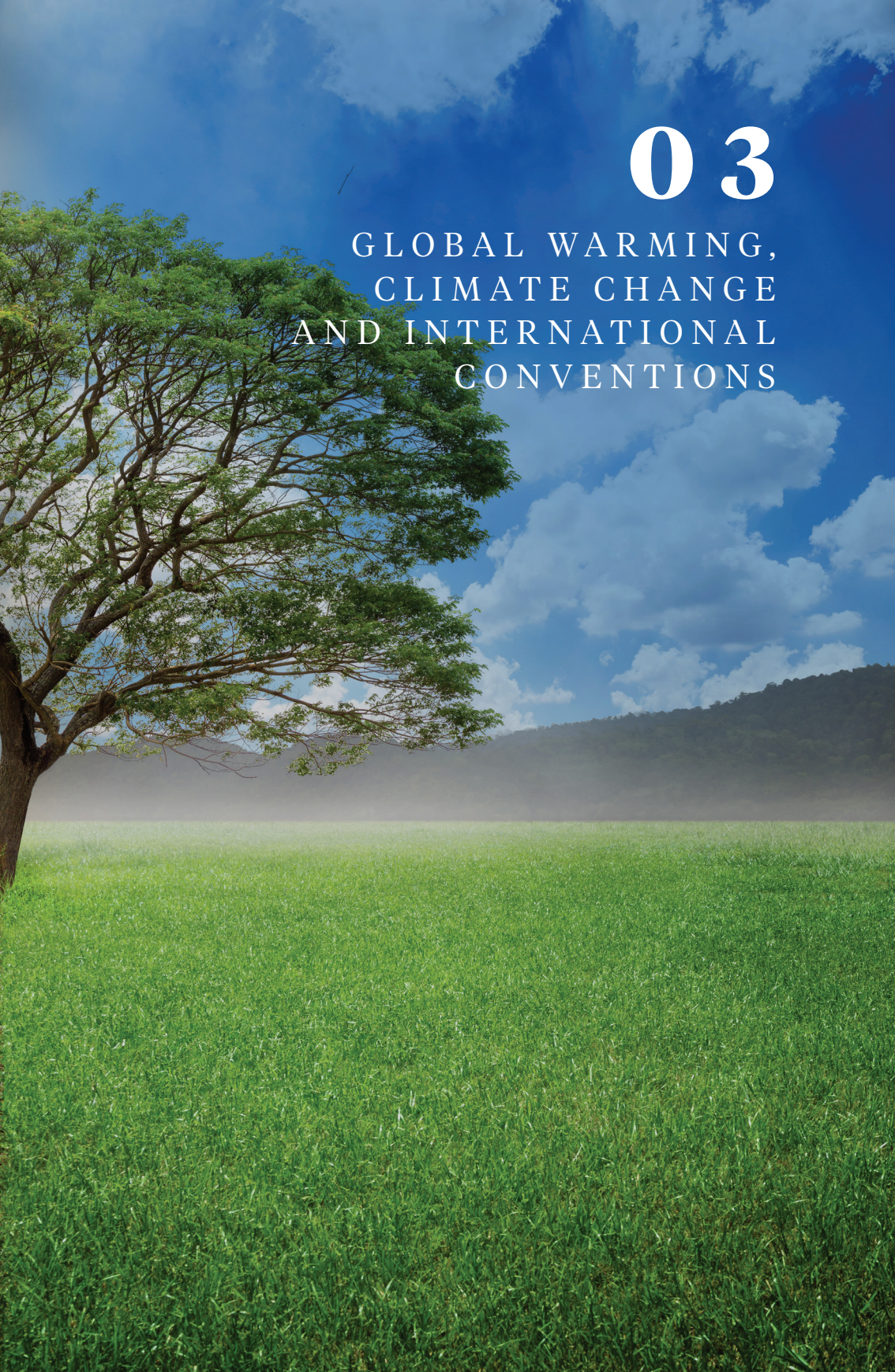
The green economy seeks to accomplish sustainable development goals by redefining areas such as ***green energy,***

green transport, green design and construction, green agriculture, green water and waste management. In this context, it is aimed to develop renewable energy sources such as wind, solar, geothermal energy via ***green energy***, as well as renewable fuels, fuel-efficient vehicles, the development of electric cars, public transportation and alternative transportation models via ***green transportation. Green design and construction*** aims integrated urban environmental management, improvements in energy and water efficiency, reusable or recyclable products, materials and infrastructures; while ***green agriculture*** aims to expand organic agriculture, provide agricultural protection and establish a community-based food system; and ***green water and waste management*** aims water treatment, reuse and recycling of wastewater and solid waste, and the development and dissemination of rainwater harvesting systems.

As a result of the green economy and green growth strategy, some changes in the labour and job markets are anticipated. In this context, the notion of ***green jobs*** emerges in relation to the potential to mitigate the consequences of climate change and environmental degradation along with the development of innovative employment policies. International Labour Organisation (ILO) defines green jobs as "decent jobs that involve environmentally sustainable economic activities in comparison to traditional alternatives and provide decent working conditions." UNEP also defines green jobs as work in agricultural, manufacturing, research and development (R&D), administrative, and service activities that contribute substantially to preserving or restoring environmental quality.

Green structural transformation also results in the creation of new green employment in areas such as renewable energy, waste management, green management and awareness, as well as a variety of retraining requirements across industries.

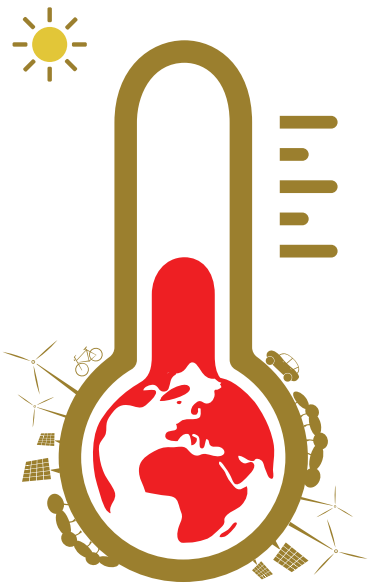
For instance, electricians, installers or fitters who install solar panels in the construction sector, in many renewable energy-related professions and those who install photovoltaic and thermal solar panels for construction are required to have specific technical skills, and these changes in return enable the creation of "new" green jobs and new employment areas.



03

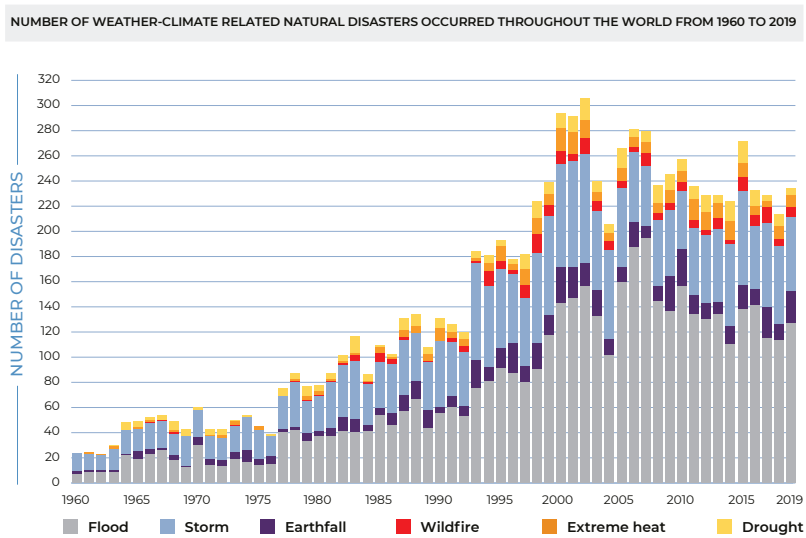
GLOBAL WARMING, CLIMATE CHANGE AND INTERNATIONAL CONVENTIONS

03
GLOBAL WARMING, CLIMATE CHANGE AND INTERNATIONAL CONVENTIONS



Since the nineteenth century, the scientific community has debated global warming and climate change, which are linked to the greenhouse effect and the increasing amount of carbon dioxide in the atmosphere. However, treating human-induced climate change as a global environmental and safety issue and addressing this issue as a key item on the international political agenda dates back to the 1970s and 1990s.

Chart 1: Weather-Climate Induced Natural Disasters Occurred Throughout the World from 1960 to 2019. (World Disasters Report 2020)



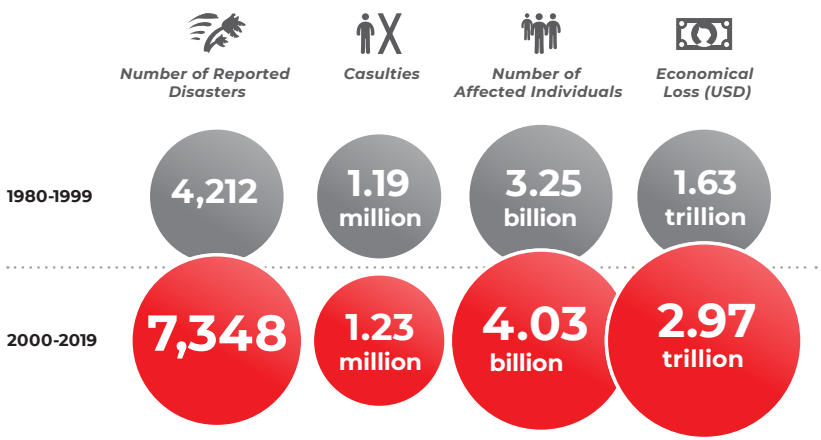
Source: Ministry of Agriculture and Forestry of the Republic of Türkiye, General Directorate of Meteorology, Assessment of Meteorological Disasters in 2020, p.15 https://mgm.gov.tr/FILES/genel/raporlar/2020MeteorolojikAfetlerDegerlendirmesi.pdf

Under the Science of Climate Change, global warming and climate change appear as two concepts that describe different processes; however, the terms are occasionally used interchangeably. To begin, ***global warming*** is simply defined as an increase in average global temperature caused by natural or anthropogenic factors in atmospheric areas close to the earth's surface. ***Climate change***, on the other hand, refers to the long-term and broader consequences of the world recovering heat such as changes in the precipitation regime and quantity, rising sea levels, melting glaciers and ice sheets, drought or flood as a result of energy budget imbalances. By recognising global warming as a cause and climate change as

a result, a simple cause-and-effect relationship may be formed. Climate change is also one of the global issues that is causing/will create today's most severe problems in terms of its effects on all countries, regardless of borders or level of development.

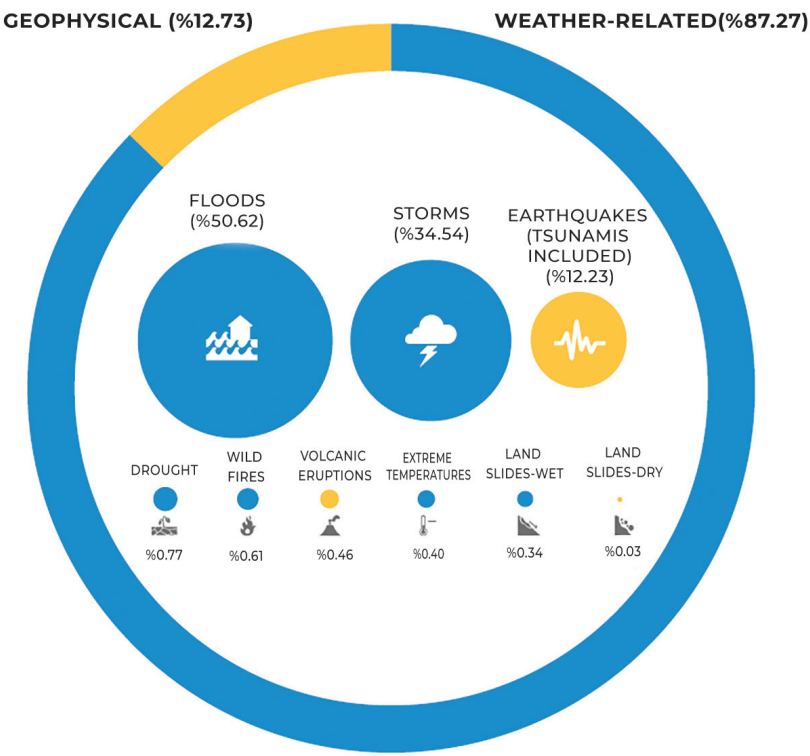
The charts and graphics below illustrate the scope of this global threat.

Figure 3: Distribution of Natural Disasters around the World by Types (1980-1999/2000-2019)



Source: Ministry of Agriculture and Forestry of the Republic of Türkiye, General Directorate of Meteorology, Assessment of Meteorological Disasters in 2020, p5, https://mgm.gov.tr/FILES/genel/raporlar/2020MeteorolojikAfetlerDegerlendirmesi.pdf

Figure 4: Distribution of Nature-Related Displacement by Disaster Types That Occurred Throughout the World between 2008 and 2018



Source: Ministry of Agriculture and Forestry of the Republic of Türkiye, General Directorate of Meteorology, Assessment of Meteorological Disasters in 2020, p.23 https://mgm.gov.tr/FILES/genel/raporlar/2020MeteorolojikAfetlerDegerlendirmesi.pdf

"The Vienna Convention for the Protection of the Ozone Layer" is the first international convention to emerge in response to global warming. The Convention was accepted in 1985 with the goal of reducing ozone-depleting substances. Following the contract, the ***"Montreal Protocol on Substances that Deplete the Ozone Layer"*** was adopted in

1987 to ensure that the use and manufacture of ozone-depleting substances are controlled. The reduction commitments foreseen in the protocol have been further advanced over time (1990, 1992, 1997, 1999 and 2016). Control of new substances and the incorporation of further measures in the convention are also included in these updates. The Montreal Protocol, which 196 countries have signed, is often regarded as the landmark multilateral environmental agreement. In addition, in 1990, the Multilateral Fund (MLF) was founded in London to implement the Montreal Protocol, funded by the contributions of developed countries. During the 28th Convention of the Parties (MOP 28), held in Kigali between October 10-15, 2016, and the MOP 29, held on November 20-24, 2017, new decisions were made, and the agreement was amended in several ways. The amendment, which was approved by the Montreal Protocol's 65 signatories, went into effect on January 1, 2019. Türkiye, which became a state party to the Montreal Protocol on December 19, 1991 and accepted all textual amendments, is one of the Protocol's successful implementers.

This ozone layer model has served as a kind of precedent for the climate change regime. In this perspective, the Montreal Protocol marks a significant milestone in the development of the UN Framework Convention on Climate Change (UNFCCC). In 1988 and 1989, the United Nations General Assembly called on governments, international organisations and NGOs to co-operate to develop a climate change framework convention, emphasising that climate change is an issue affecting all humanity. The draft Climate Change Framework Convention was presented at the Rio World Summit in June 1992 as a result of studies. In 1992, ***the United Nations Framework Convention on Climate Change (UNFCCC)*** was adopted in 1992 to lay the groundwork for a global response to the climate change problem. On March 21, 1994, the

treaty went into effect. The treaty, which includes 194 parties, has reached almost universal involvement. The ultimate goal of the convention is to halt the accumulation of greenhouse gases in the atmosphere at a level that will prevent the dangerous human-induced impact on the climate system. As a framework treaty, the UNFCCC specifies general norms, principles and obligations. The convention acknowledges that the climate system is a shared resource whose stability can be affected by emissions of carbon dioxide and other greenhouse gases caused primarily by industry and other sectors.

Table 1: Historical Process of Conference of Parties

Name of the Conference	Conference Date and Location	Significance/Short Description
COP 1	March, 28 - April 7, 1995 Berlin, Germany	At the summit, the signatories committed to meeting yearly to closely monitor global warming and the need to reduce hazardous gas emissions.
COP 2	July 8-19, 1996, Geneva,	The Ministerial Declaration was drafted by the ministers attending the conference on July 18, 1996; however, it was not adopted.
COP 3	December, 1997 Kyoto, Japan	The Kyoto Protocol was adopted.
COP 4	November, 1998 Buenos Aires, Argentina	Within the framework of addressing global warming, a two-year "Action Plan" was adopted.
COP 5	October 5-November 5, 1999 Berlin, Germany	As the conference was a technical meeting, no concrete output or outcome was achieved.
COP 6 / COP 6 bis	November13-15, 2000 The Hague, Netherlands July 17-27, 2001, Bonn, Germany	COP 6 began in The Hague, but it was cut short as political discussions on key issues such as carbon reductions, financial assistance, and commitments evolved into negotiations. The following year, COP 6 bis, a continuation of the interrupted COP 6, was convened in Bonn. Before COP 6 bis, US President George W. Bush rejected the Kyoto Protocol; nevertheless, once the US became an observer, agreements on a range of issues were reached, including carbon reductions, financing and adaptation.
COP 7	October 29-November 10, 2001 Marrakesh, Morocco	The parties finalised their efforts on the Buenos Aires Action Plan at COP 7, resolving most of the operational details and paving the way for countries to adopt the Kyoto Protocol. This decision package is knowns as the Marrakesh Agreement. The US delegation refused to actively participate in these negotiations and instead remained as an observer.

Name of the Conference	Conference Date and Location	Significance/Short Description
COP 8	October 23-November 1, 2002 New Delhi, India	The Delhi Ministerial Declaration was adopted. The New Delhi Work Programme was approved in accordance with Article 6 of the Convention. Russia's reservations regarding the Kyoto Protocol, as well as its request for more time influenced this conference.
COP 9	December 1-12, 2003 Milan, Italy.	It was agreed at this Conference that the Adaptation Fund, established in 2001, should be used primarily to assist developing countries in better adapting to climate change as well as for capacity building through technology transfer.
COP 10	December 6-17, 2004 Buenos Aires, Argentina	The evolution and future challenges of the first Conference of the Parties were discussed at COP 10. The Buenos Aires Action Plan was adopted to help developing countries better adapt to climate change.
COP 11	November 28-December 9, 2005, Montreal, Canada	It was the largest gathering of the intergovernmental climate conference since the adoption of the Kyoto Protocol in 1997. The Montreal Action Plan was approved, and it was adopted as a road map for the subsequent years.
COP 12	November 6-17, 2006, Nairobi, Kenya	The emphasis was on moving forward with adaptation in mind at the Nairobi Conference; increasing the equity and accessibility of the Clean Development Mechanism (CDM); reviewing the mandate of the Expert Group on Technology Transfer (EGTT); maintaining the momentum of the post-2012 climate regime discussions.

Name of the Conference	Conference Date and Location	Significance/Short Description
COP 13	December 3-17, 2007, Bali, Indonesia	At this Conference, the Bali Roadmap was drafted. With this roadmap, a timeframe was established for the negotiations to be held in order to establish a new international agreement, which is intended to replace the Kyoto Protocol and includes all countries.
COP 14	December 1-12, 2008 Poznan, Poland	The delegates at the conference agreed on the funding and principles for a fund to assist impoverished countries in coping with the effects of climate change. It was also recorded that negotiations were held on the post-Kyoto Protocol.
COP 15	December 7-8, 2009 Copenhagen, Denmark	At this conference, the target of keeping global warming below 2°C was approved, developed countries committed to long-term financing for developing countries.
COP 16	November 28 - December 10, 2010, Cancun, Mexico	The Cancun Agreements (Decision: /CP.16) were adopted (UNFCCC, 2010) at this Conference. The goal of the international agreement was to limit the global temperature rise to 2°C while also reducing green gas emissions measurably through national plans to be developed as part of their shared but varying responsibilities and capacities. In addition, the "Green Climate Fund" was established to support climate action in developing countries.
COP 17	November 28-December 09, 2011 Durban, South Africa	At this conference, developing countries such as the United States and Brazil, and China, India, and South Africa, agreed to begin lowering all emissions. Again, it was determined at this conference to negotiate a global agreement that will go into effect in 2020.

Name of the Conference	Conference Date and Location	Significance/Short Description
COP 18	November 26-December 07, 2012 Doha, Qatar	This conference featured the "Doha Climate Gateway." The Kyoto Protocol was amended for the second commitment period; a new commitment period covering the years 2013-2020 entered into force; the allocated units were transferred to the new commitment period, and their terms of use were determined; and the Ad Hoc Working Group on Long Term Cooperative Action (AWG-LCA), which was established in Bali in 2007, was completed at this meeting. For the first time, loss and damage-related terms were added in conference documentation, and they became official at this meeting.
COP 19	November 11-23, 2013, Warsaw, Poland	It can be stated that the negotiations held within the framework of this conference focused on the implementation of the agreements adopted in the previous meetings. Furthermore, the parties decided to establish the Warsaw International Mechanism for Loss and Damage (WIM).
COP 20	December 1-12, 2014 Lima, Peru	At this conference, all countries committed for the first time to develop and share their commitments to reduce greenhouse gas emissions.
COP 21	November 30-December 12, 2015 Paris, France	The Paris Agreement, which establishes the framework for the post-2020 climate change regime, was adopted. The agreement went into effect on November 4, 2016, after being ratified by at least 55 countries, which together accounted for 55 per cent of global greenhouse gas emissions as of October 5, 2016.

Name of the Conference	Conference Date and Location	Significance/Short Description
COP 22	November 7-18, 2016 Marrakesh, Morocco	The meeting successfully demonstrated to the world that the Paris Agreement was being implemented and that the constructive spirit of multilateral collaboration on climate change was being maintained. The importance of inter-country dialogue, cooperation, and the fight against climate change was highlighted. Furthermore, because this is the first conference convened following the entry into force of the Paris Agreement, it is known as the "Conference of Action."
COP 23	November 6-17, 2017 Bonn, Germany	This conference went into great detail about how the Paris Agreement would work in practice. Furthermore, in order to meet the Paris Agreement's goals, communication channels were established for countries to share their experiences and best practices.
COP 24	December 3-14, 2018, Katowice, Poland	The report released by the IPCC just before the conference, detailing the impacts of a 1.5°C increase in global temperature, came to the fore at the conference. Despite the fact that the conference highlighted the urgency of lowering pollution emissions, it was not included as an action plan in the agreed-upon texts.
COP 25	December 2-13, 2019 Madrid, Spain	The ongoing blockade was lifted by acknowledging the need to assist developing countries in dealing with loss and damage caused by the climate crisis. Initially, loss and damage were incorporated into the UNFCCC financial structure in this regard. The "Gender Action Plan" and the “Local Communities and Indigenous Peoples Platform" work plans were approved.

The Kyoto Protocol was adopted at the 3rd UNFCCC Conference of the Parties held in Kyoto in December 1997. The protocol endorses the UNFCCC's goals and bodies. However, the most important distinction between the two agreements, however, is in the legal nature of the obligations they regulate. While the Convention outlines a non-binding obligation for industrialised countries to stabilise their greenhouse gas emissions, the Protocol imposes binding obligations on industrialised country parties to limit and reduce greenhouse gas emissions. The detailed implementing rules required to prepare the agreement for ratification and implementation by countries were adopted at the 7th Conference of the Parties in Marrakesh in 2001. These rules, known as the "Marrakesh Accords", were adopted during the 1st Meeting of the Protocol Parties in 2005. Since May 2010, 191 countries and the European Union have been parties to the Kyoto Protocol, which entered into force on February 16, 2005. In accordance with the Convention's principle of "common but differentiated responsibilities", the Protocol followed the distinction made by the Convention between parties in terms of their obligations and imposed binding emission reduction obligations on developed countries while increasing their burden.

The Bali Road map, developed as a result of the 13th Conference of the Parties held in Bali in 2007 to determine climate policies following the Kyoto Protocol, was a key milestone. Following the failure of the 15th Conference of the Parties in Copenhagen in 2009 to reach agreement on the second commitment period, the parties reached a consensus at the 18th Conference of the Parties in Doha in 2012 and decided to extend the Protocol until 2020. As a result, the second commitment period has been established as 2013–2020.

In contrast to the first commitment period, it was agreed with the "Doha Amendment," which forms the protocol's

second commitment period, that the parties on the Annex-B list would lower their emissions by at least 18 per cent in 2020 compared to 1990. The Doha Amendment to the Kyoto Protocol, which required approval by 144 country parties to enter into force, had been accepted by only 135 countries as of December 10, 2019 and thus did not take effect. The United States, Japan, Russia and New Zealand did not take part in the second commitment period. As a result, the fight against climate change has been left to the EU and a few minor developed countries' commitments to reduce emissions.

The Paris Agreement, which establishes the framework for the post-2020 climate change regime, was adopted in 2015 during the 21st UNFCCC Conference of the Parties in Paris. The agreement went into effect on November 4, 2016, after at least 55 parties ratified it, accounting for 55% of global greenhouse gas emissions, as of October 5, 2016.

Compared to the UNFCCC, the most distinctive feature of the Paris Agreement is that it envisions a system based on all countries' contributions. The agreement is based on the classification of developed/developing countries in the fight against climate change, as well as the approach that all countries bear responsibility under the principle of "common but differentiated responsibilities and respective capabilities". There are no criteria for designating countries as developed or developing, and no differentiation is made.

The Paris Agreement aims to strengthen global socioeconomic resilience to the threat of climate change in the post-2020 timeframe. The long-term goal of the Paris Agreement is to keep the increase in global average temperature to well below 2°C, compared to the pre-industrial era. This goal requires a gradual reduction in the use of fossil fuels (oil, coal) and a shift toward renewable energy. In terms

of addressing climate change, the Agreement established a framework for determining implementation procedures regarding nationally determined contributions, reduction, adaptation, loss, financing, technology development and transfer, capacity building, transparency, and status assessment.

To improve the adaptation and resilience capabilities of the countries vulnerable to the negative effects of climate change as well as their capacity to reduce greenhouse gas emissions, the Agreement primarily envisions developed countries providing resources such as funding, technology transfer, and capacity building to developing countries in need, particularly Least Developed Countries and the Small Island States.

The 22nd UNFCCC Conference of the Parties, which took place in Marrakesh from 7 to 18 November 2016, was dubbed the "Conference of Action" because it was the first conference of the parties held following the Paris Agreement's entry into force. As a result of the conference, it was projected that the implementation parameters for the Paris Agreement would be finalised by the end of 2018, at the latest. The "Marrakesh Partnership for Global Climate Action" was launched, and the "Marrakesh Action Proclamation for Climate and Sustainable Development" was adopted for the 2017-2020 time period.

The 23rd UNFCCC Conference of the Parties (COP 23) was held in Bonn from 6 to 17 November 2017 on behalf of the Fiji Presidency, and COP 24 was held in Katowice from 2 to 15 December 2018. The "Rulebook," which details the procedures for implementing the Paris Agreement, was adopted at COP24. The 25th Conference of the Parties (COP 25) took place in Madrid from 2 to 5 December, 2019, under the presidency of the Government of Chile.

The European Union (EU) stated at the end of 2019 that as part of the ***European Green Deal,*** it set a goal of becoming the first climate-neutral continent by 2050**.** It also announced that it would adopt a new growth strategy that would require industry transformation, and it would thus reorient all of its policies around the axis of climate change.

The European Union (EU), known for its sensitivity to environmental and social sustainability issues, particularly around combating climate change, reducing greenhouse gas emissions, and using renewable energy since the 1990s, took these sensitivities a step further in November 2019 by presenting a package of initiatives, a commitment to take firm and ambitious steps on such sustainability issues: The European Green Deal.

The Deal resonated with all international organisations and private sector players who have economic, political and geographical connections with the EU. Because the Deal, which consists of the standards set by the EU for its member states, also has the potential to affect the relations of EU countries with third parties. Relevant actions under the European Green Deal will lay the foundations for a transformation that will reshape the EU economy and gain momentum year after year, affecting sectors such as energy, transport, industry, finance, construction, and agriculture. In general, the objectives of the deal include reducing net greenhouse gas emissions to zero by 2050, decoupling economic growth from resource use, and ensuring that no one or region is left behind or excluded from these policies. Climate crisis response policies organised within the framework of the Green Deal are binding not only on the European Union and European continent countries but also in all other countries that wish to maintain commercial and economic ties with these countries. The deal is expected to

have a profound impact on economic, commercial, and political relations between Europe and countries that are not ready or willing to take similar steps in the fight against the climate crisis.

Within the scope of the defined objectives, the growth strategy is structured under seven policy areas: i) clean energy, ii) sustainable industry, iii) building and renovating, iv) farm to fork, v) eliminating pollution, vi) sustainable mobility and vii) biodiversity.

The EU is also putting in place some plans and mechanisms to guide and act as a tool in the process of implementing the targeted transformation within the scope of the Deal. These are; i) The European Green Deal Investment Plan, which is

a framework for the management of necessary investments within the scope of the Deal, ii) The Just Transition Mechanism designed to prevent the negative impact of regions and communities (such as those in the fossil fuel value chain) that are at risk of socioeconomic damage from the process, iii) The European Climate Law, which aims to eliminate national implementation differences that could prevent Europe from reaching its climate-neutral goal by 2050, iv) the European Industrial Strategy, which aims to support industry and SMEs with green and digital transformation, and v) the Circular Economy Action Plan that aims for sustainable production and consumption practices to be adopted within the Union.

The unlimited challenge of both the climate crisis and the ecological crisis, which requires global efforts, is frequently emphasised in the European Green Deal text, and thus an approach that includes non-EU actors is emphasised. The availability of EU opportunities for integration and all its requirements also offers essential opportunities for partner countries and institutions outside the Union. Focusing on shaping the EU economy for a sustainable future, the European Green Deal continues to update its goals and instruments in line with the requirements. Türkiye follows this process closely and continues its struggle with various projects and institutional coordination.

Some plans have been developed to serve as a road map in the European Union Green Deal context. These are as follows:

- To actively engage sustainability in all European Union agreements,
- To provide fairer agreements by considering green development and investment,

- Allocating a share to green in the planning of country budgets,
- Allocating more budget to research and directing it to innovations,
- To enrich the training programs,
- To make a commitment for the protection of green among European countries and to work to ensure that commitment is not broken,
- To comply with European climate agreements,
- Globalising the measures taken by the European Union for climate change.

The Green Deal, which aims to make Europe the world's first climate-neutral continent, where there will be net-zero emissions of greenhouse gases in 2050, envisages radical policy changes in almost all areas of the economy, such as energy and transportation, agriculture, industry and trade. The Green Deal aims to provide the EU economy with a circular, resource-efficient, and competitive structure based on combating climate change and environmental protection. Since the adoption of the Green Deal, various strategies and policy and legislative changes at the sectoral level have been implemented in areas such as decarbonisation of energy systems, the establishment of sustainable and smart transportation systems, circular economy, trade, industry, sustainable agriculture and food supply, and biodiversity protection. Within the context of this dynamic process still unfolding within the EU, it is necessary to review and adjust all policy areas in accordance with the EU's climate objectives. The Green Deal-based sustainable and green investment incentives form the bedrock for the EU's economic recovery following the Covid-19 pandemic.

04

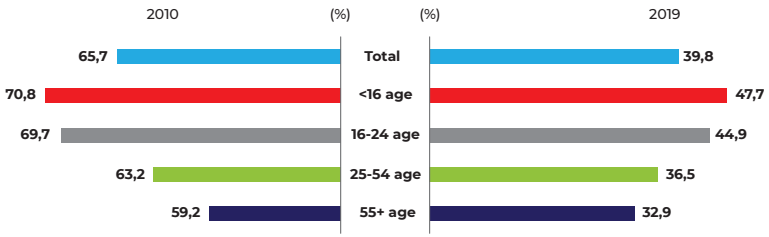
SUSTAINABLE DEVELOPMENT GOALS AND TÜRKİYE

04
SUSTAINABLE DEVELOPMENT GOALS AND TÜRKİYE

There is a global indicator set consisting of 231 individual indicators to monitor the level of achievement of Sustainable Development goals and targets. The global indicators included in the 2030 Agenda aims to measure progress under 17 goals and 169 targets. In this context, TURKSTAT prepared 2010-2019 Sustainable Development Indicators in February 2021 (For detailed information, https://data.tuik.gov.tr/Bulten/Index?p=Sustainable-Development-Indicators-2010-2019-37194).

According to this indicator set, the relative poverty rate in Türkiye decreased by approximately 2.5 points between 2010-2019. According to poverty rates calculated based on 50 per cent of median equivalised household disposable income, the poverty rate, which was 16.9% in 2010, dropped by approximately 2.5 percentage points to 14.4% in 2019.

Chart 2: Proportion of Individuals at Risk of Poverty or Social Exclusion, 2010-2019



Source: https://data.tuik.gov.tr/Bulten/Index?p=Sustainable-Development-Indicators-2010-2019-37194

While in-work at risk of poverty rate of population was 17.9% in 2010, it fell by 4.7 percentage points in 2019 to 13.2%. The proportion of people at risk of poverty or social exclusion was 39.8% in 2019, falling by 25.9 percentage points from 65.7% in 2010.

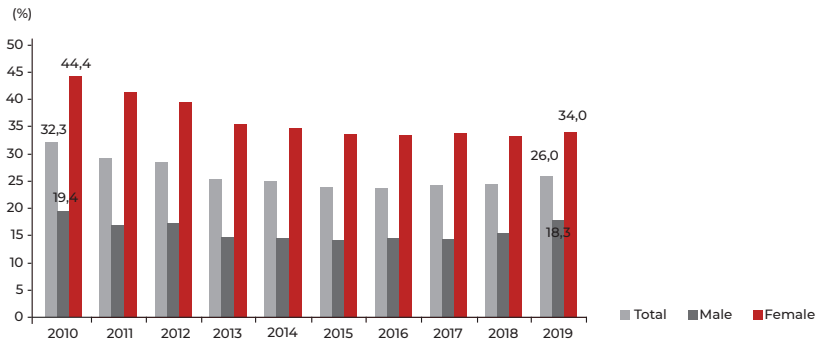
According to this indicator set, the maternal mortality rate in Türkiye, which was 16.7 per hundred thousand live births in 2010, decreased to 13.1 in 2019. In 2014, the completion rates for primary, middle, and secondary education were 97.7%, 94.1%, and 58.8%, respectively. In 2019, they were 98.6%, 97.7%, and 70.3%. While the proportion of women aged 20-24 who were married before age 18 was 8.2% in 2010, it fell to 5.1% in 2019. The proportion of seats held by women in local governments, which was 9.9% in 2014, increased to 10.1% in 2019. While the proportion of women in managerial positions was 14.4% in 2012, it increased to 17.5% in 2019. While this proportion in the industry and services sectors was 10.2% and 17.9% in 2012, it increased to 10.8% and 22% in 2019, respectively.

According to this indicator set, while the rate of individuals in the 15-24 age group who do not attend formal and non-formal

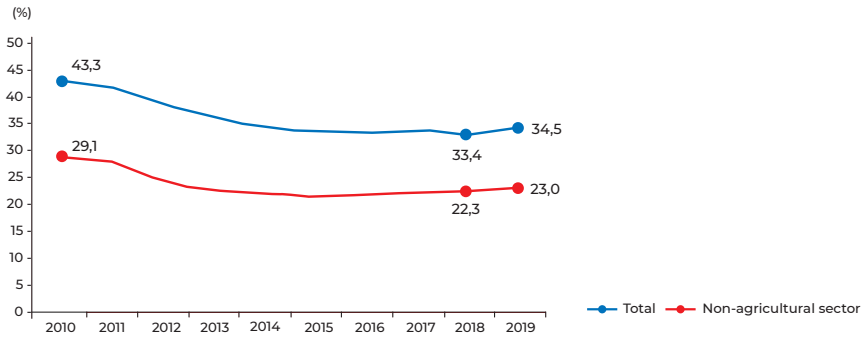
education and do not have a job in Türkiye was 32.3% in 2010, it fell to 26.0% in 2019. While the rate of informal employment in total employment was 43.3% in 2010, it fell to 34.5% in 2019.

Chart 3: Various Data of Employees

Proportion of youth (aged 15-24 years) not in employment, education on training, 2010-2019



Proportion of employment without having a social security registration in total employment, 2010-2049

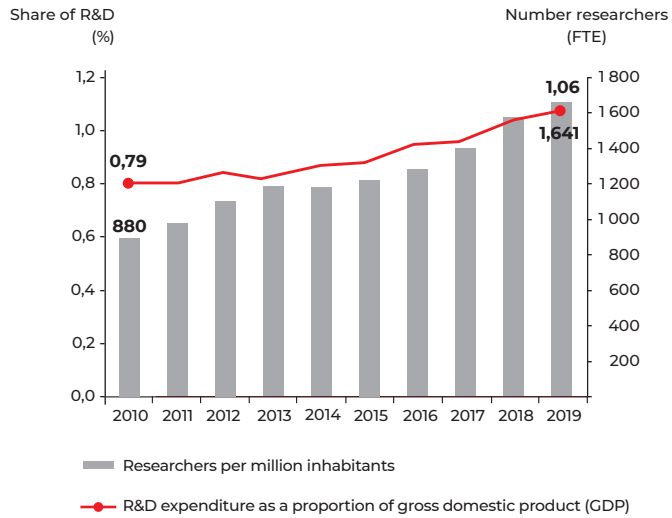


Source: https://data.tuik.gov.tr/Bulten/Index?p=Sustainable-Development-Indicators-2010-2019-37194

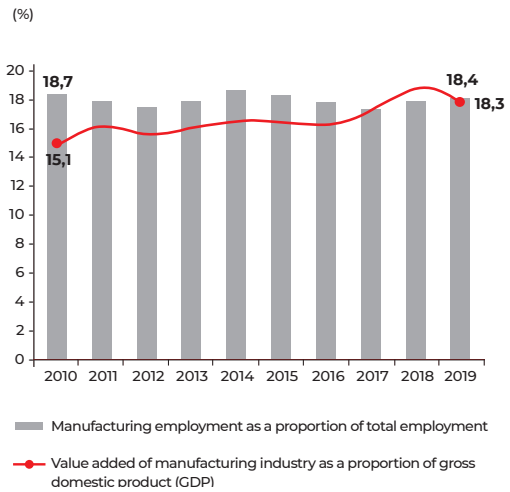
While the share of research and development (R&D) expenditure in the gross domestic product (GDP) was 0.79% in 2010, it was 1.06% in 2019. While the number of researchers per million inhabitants in terms of full-time equivalent (FTE) was 880 in 2010, this figure increased to 1,641 in 2019.

Chart 4: Various Data on Expenditures in GDP

The share of R&D expenditures in GDP and number of researchers, 2010-2019



Manufacturing industry's share in total employment and GDP, 2010-2019



Source: https://data.tuik.gov.tr/Bulten/Index?p=Sustainable-Development-Indicators-2010-2019-37194

Manufacturing value added as a proportion of GDP was 15.1% in 2010 and reached 18.3% in 2019, increasing 3.2 percentage points.

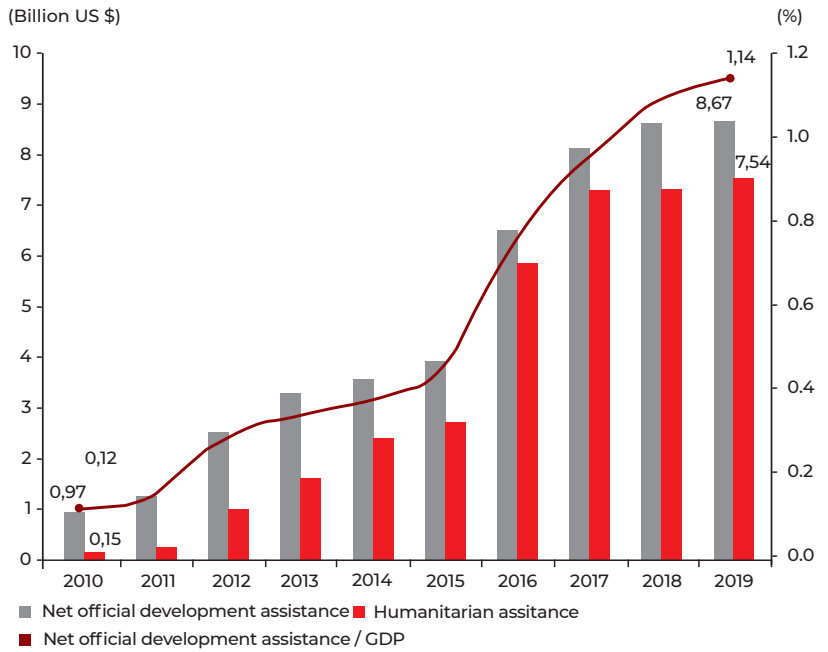
The average share of the built-up area that is open space for public use, such as parks, recreational areas, civic parks, gardens, squares and plazas, as well as land allocated to streets and avenues at Türkiye level, was measured at 13.56%.

While the forest area as a proportion of total land area was 27.1% in 2010, it increased by 2.1 percentage points in 2019 to 29.2%. In the same period, the normal forest area as a proportion of total land area increased from 14.6% to 16.8%.

The proportion of young and women deputies in the Grand National Assembly of Türkiye (GNAT) has increased. According to this indicator set, the proportion of young deputies in the GNAT (45 years old and younger) was 29.8% in 2018, whereas it was 28.4% in 2011. In the same period, the proportion of women deputies increased from 14.4 per cent to 17.3 per cent. In the same period, the representation of women eligible to be elected as deputies in the GNAT increased from 0.28 to 0.34

The total amount of net official development assistance provided by Türkiye as a donor country to less developed and developing countries increased nearly nine-fold between 2010 and 2019, amounting to 8 billion 667 million USD in 2019.

Chart 5: Net Official Development Assistance, Share of Net Official Development Assistance in GDP and Humanitarian Aid, 2010-2019



Source: https://data.tuik.gov.tr/Bulten/Index?p=Sustainable-Development-Indicators-2010-2019-37194

While humanitarian assistance provided by Türkiye in 2010 was 153 million USD, it reached 7 billion 541 million USD in 2019. The share of net official development assistance in the gross domestic product (GDP) increased from 0.12% in 2010 to 1.14% in 2019.

While the proportion of individuals using the Internet was 37.6% in 2010, it increased to 74% in 2019. The proportion of individuals who use a mobile phone was 93.5% in 2019, and it was 96.9% among men and 90.2% among women.


GUMOTEX

05

CLIMATE CHANGE AND TÜRKİYE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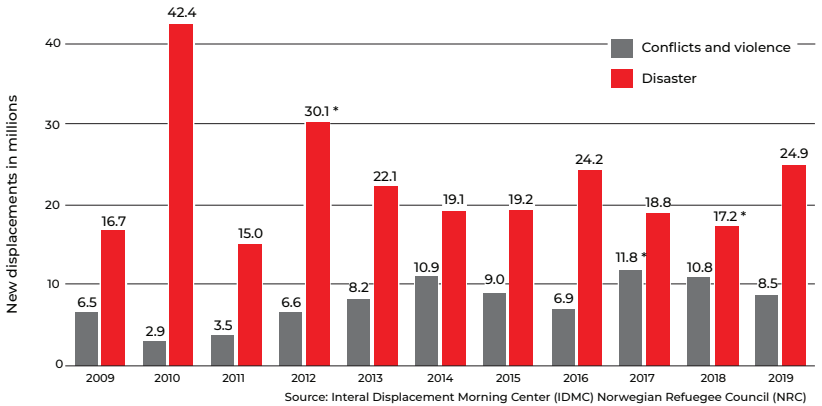
05
CLIMATE CHANGE AND TÜRKİYE

The unfavourable effects of climate change, a global issue becoming more severe by the day, have a profound impact on Türkiye. Türkiye is one of the countries most vulnerable to the potential effects of global climate change. Natural disasters such as extreme weather events, forest fires, storms, floods, hail storms, heat waves, landslides, and avalanches are expected to become more common in our country due to climate change. It is found that the number of meteorological disasters that occurred in the 2000s increased threefold when compared to the 1960s. This translates to a 15-fold increase in insurance losses and a 9-fold increase in economic losses.

The mucilage problem in the Marmara Sea, the flood disasters in Rize, Artvin, Kastamonu, Sinop and Bartın, and the fire disasters in many cities of Türkiye, particularly in Antalya and Muğla, are among the concrete and current examples of climate change in Türkiye. According to experts, climate migration may also be triggered as a result of such natural disasters. This prediction is supported by the chart below, depicting global displacement.

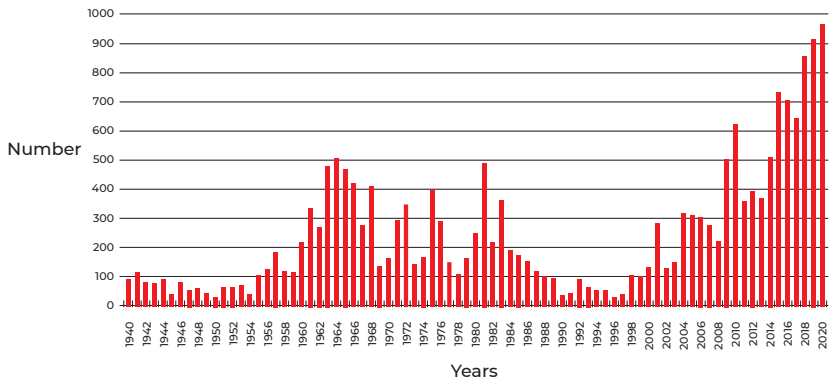
Chart 6: Worldwide Migration Activities as a result of Natural Disasters, Conflicts and Violence between 2009-2019



Source: Ministry of Agriculture and Forestry of the Republic of Türkiye, General Directorate of Meteorology, Evaluation of Meteorological Disasters in 2020, p.22, https://mgm.gov.tr/FILES/genel/raporlar/2020MeteorolojiAfetlerDegerlenensi.pdf

Climate change poses significant risks to a variety of sectors in Türkiye, which will also trigger climate migration. Climate changes endanger water resources, destroy agricultural lands and adversely affect livestock. Given that all of this has occurred with only a 1.1°C increase in global average temperature, one can estimate what will happen if the temperature increase and adverse effects continue.

Chart 7: Annual Distribution of Meteorological Natural Disasters Observed in Türkiye between 1940-2020



Source: Ministry of Agriculture and Forestry of the Republic of Türkiye, General Directorate of Meteorology, Evaluation of Meteorological Disasters in 2020, p.48, https://mgm.gov.tr/FILES/genel/raporlar/2020MeteorolojiAfetlerDegerlenensi.pdf

While approximately 50% of maximum temperature records have been observed in Türkiye since 2000, this rate has decreased to 10 per cent for minimum temperature records. In other words, over the last 25 years, both the temperature has risen noticeably, and the frequency and intensity of heatwaves in Türkiye have increased significantly.

The significance of the Paris Agreement becomes clear at this point. The Paris Agreement aims to improve the implementation of the UNFCCC in the context of sustainable development and poverty eradication. The Agreement's long-term goal is to keep the global average temperature increase below 2°C compared to the pre-industrial period while also maintaining global efforts to keep this increase below 1.5°C. Türkiye has been committed to these important goals from the start and has contributed significantly to the process. On April 22, 2016, Türkiye signed the Paris Agreement alongside representatives from 175 countries at the High-Level Signa-

ture Ceremony in New York. Even though Türkiye did not sign the Paris Agreement at the outset, it has conducted preliminary research and prepared for the process. In addition to the Paris Agreement, Türkiye has demonstrated its commitment to the fight against global climate change by developing and implementing the action plan required to comply with the European Green Deal.

Regardless of all these international processes, Türkiye has taken steps to raise awareness about the environmental problems associated with industrialization, and it has highlighted numerous studies that demonstrate the futility of viewing nature as an enemy and an obstacle to be defeated. The regulation on Zero Waste was issued by the Presidency on July 12, 2019, and went into effect. The zero-waste initiatives pioneered by First Lady Emine Erdoğan, the spouse of President Recep Tayyip Erdoğan, have evolved into a state policy for environmental protection and the development of a new economic awareness.

The following sections discuss Türkiye's participation in international agreements as well as its practices in combating climate change, green economy, and sustainable development.

5.1. Türkiye's UNFCCC Process

The UN Conference on Environment and Development (Rio Conference), held in Rio de Janeiro from June 3 to June 14, 1992, was an important step for nations to adopt a set of principles for embracing environmentally responsible management styles. At this conference, the UN Framework Convention on Climate Change was opened for signature. The United Nations Framework Convention on Climate Change (UNFCCC), which is regarded as the first and most important step in the international arena to address climate change, is a treaty that went into effect in 1994. 197 countries are now party to this convention. It is fair to say that this structure serves as the foundation for both the Kyoto Protocol and the Paris Agreement.

UNFCCC encourages Parties to the Convention to reduce greenhouse gas emissions, cooperate on research and technology, and protect greenhouse sinks (for example, forests, oceans, lakes). The Convention is founded on the principle of "common but differentiated responsibilities and respective capabilities", taking into account each country's development priorities and special circumstances to reduce greenhouse gas emissions.

The Convention is founded on the idea that some countries should bear a greater share of the responsibility for releasing more greenhouse gases into the atmosphere that cause climate change than other countries following the industrial revolution. The principle of "common but differentiated responsibilities and relative capabilities" requires countries to contribute to this global effort in line with their socioeconomic circumstances. In this context, the Convention divides countries into three groups according to differing commitments. In the most basic sense, Annex-I Countries are countries that take precautions and have obligations, while Annex-II Countries are obliged to support other countries in addition to their obligations in the first group. Non-Annex Countries are countries that are encouraged to join but are not subject to any specific obligation.

Türkiye has a unique position under the UNFCCC negotiations. When the UNFCCC was adopted in 1992, Türkiye, as an OECD member, was included in the Annex-I and Annex-II lists of the Convention alongside the developed countries. With the adoption of Decision no. 26/CP.7 at the seventh session of the Conference of the Parties (COP7) in Marrakesh in 2001, Türkiye's distinct position from other Annex-I parties was recognized, and its name was deleted from the UNFCCC's Annex-II list while remaining on the Annex-I list. The Marrakesh Ministerial Declaration no. 26/CP.7, which states that Türkiye is in a different situation from that of other Annex-I

countries due to its special circumstances, is significant when historical responsibility, economic development level, technological know-how, human development index, sensitive country position, and similar indicators are considered. Within the framework of the seventh session of the Conference of the Parties (COP 7) held in Marrakesh in 2001, it was decided to remove Türkiye from the UNFCCC Annex-II list. Furthermore, this decision called for Türkiye to remain in Annex-I, but to take into account Türkiye's special circumstances, emphasizing that it was in a different position than the countries on the Annex-I list. On May 24, 2004, Türkiye became the 189th Party to the UNFCC. In this regard, Türkiye is the only country in Annex I that does not have a transition economy and whose "special conditions" are acknowledged by Conference of the Parties decisions.

5.2. The Republic of Türkiye's Becoming a Party to the Kyoto Protocol

The Kyoto Protocol was adopted at the 3rd UNFCCC Conference of the Parties held in Kyoto in December 1997. The protocol endorses the UNFCCC's goals and bodies. However, the most important distinction between the two agreements, however, is in the legal nature of the obligations they regulate. While the Convention outlines a non-binding obligation for industrialised countries to stabilise their greenhouse gas emissions, the Protocol imposes binding obligations on industrialised country parties to limit and reduce greenhouse gas emissions. The detailed implementing rules required to prepare the agreement for ratification and implementation by countries were adopted at the 7th Conference of the Parties in Marrakesh in 2001. These rules, known as the "Marrakesh Accords", were adopted during the 1st Meeting of the Protocol Parties in 2005. Since May 2010, 191 countries and the European Union are parties to the Kyoto Protocol, which entered into force on February 16, 2005.

Türkiye became a party to the Kyoto Protocol on August 26, 2009, following the adoption of Law No. 5386 by the Grand National Assembly of Türkiye on February 5, 2009. Türkiye, which was not a party to the UNFCCC when the Protocol was adopted, was not included in the protocol's Annex-B list, which defines the quantified emission limitation and reduction targets of Annex-I parties. Accordingly, Türkiye had no liability of quantified emission reduction undertaken within the scope of the protocol, for the first obligation period of the Protocol, which ran from 2008 to 2012.

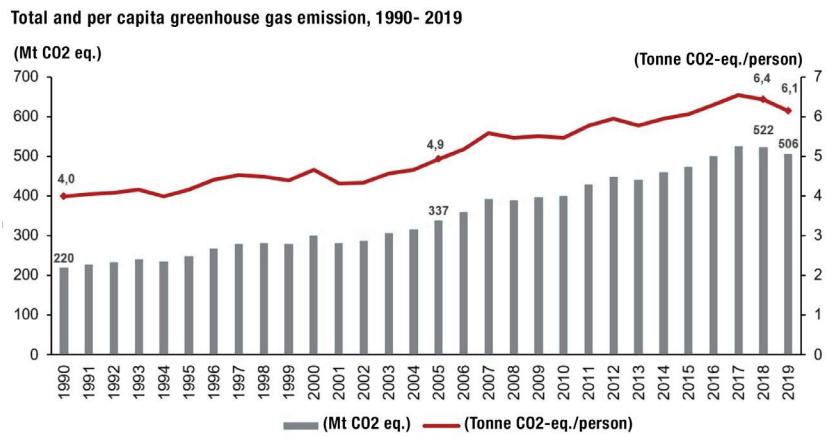
5.3. Türkiye's Paris Agreement Process

The Paris Agreement is regarded as a more realistic agreement that envisages a system based on all countries' contributions in an effort to maintain global warming at 1.5 °C or below 2 °C, which had been a failed attempt with previous conventions and protocols. The Paris Agreement aims to improve the implementation of the UNFCCC in the context of sustainable development and the eradication of poverty.

It is important to note that Türkiye has been a supporter of these important aims from the very beginning, has contributed to the process, and has always been the party with a favourable attitude toward combatting climate change, notably within the parameters of the Paris Agreement, which has kept the talks afloat. Türkiye signed the Paris Agreement on April 22, 2016, alongside representatives from 175 countries at the High-Level Signing Ceremony in New York. Nonetheless, due to Türkiye's objections to the inequities in the section on liabilities, the ratification process of the agreement at the Grand National Assembly of Türkiye could not be initiated. The Legislative Proposal on the Ratification of the Paris Agreement was ratified by the General Assembly of GNAT and became effective after being promulgated in the Official Gazette No. 31621 dated October 7, 2021.

During the years when the Paris Agreement was not ratified, Türkiye took significant steps toward becoming an environmentally conscious country. As a result of these efforts, total greenhouse gas emissions amounted to 506.1 Mt CO2 equivalent in 2019.

Chart 8: Green Gas Emission Statistics, 1990-2019

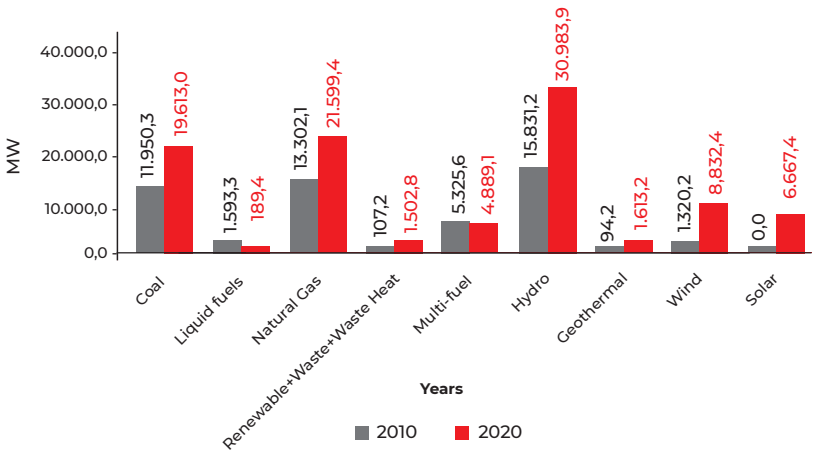


Source: https://data.tuik.gov.tr/Bulten/Index?p=Greenhouse-Gas-Emissions-Statistics-1990-2019-37196

On the report of the results of the greenhouse gas (GHG) inventory, the total greenhouse gas emissions declined by 3.1 per cent in 2019 compared to the previous year, totalling 506.1 million tonnes (Mt) CO2 equivalent (eq.). Total greenhouse gas emissions per capita were calculated as 4 tonnes CO2-eq. in 1990, 6.4 tonnes CO2-eq. in 2018, and 6.1 tonnes CO2-eq. in 2019.

Türkiye has been revising its policies in practically all areas of the fight against climate change in recent years, adhering to the principles of sustainable development, and is on its way to developing its legal, institutional, and economic systems in the context of the new climate economy. Türkiye is continuing its efforts to combat climate change by building infrastructure and utilising renewable and clean energy sources.

Chart 9: Türkiye's Installed Capacity by Primary Energy Sources for the Years 2010 and 2020



Annual Development of Renewable Based Installed Capacity Share in Türkiye's Total Installed Capacity

Years	Hydro (MW)	Geothermal (MW)	Wind (MW)	Solar (MW)	Biomass (MW)	Renewable Installed Capacity (MW)	Total Installed Capacity (MW)	Renewable Share (%)
2000	11.175,2	17,5	18,9		10,0	11.221,6	27.264,1	41,2
2001	11.672,9	17,5	18,9		10,0	11.719,3	28.332,4	41,4
2002	12.240,9	17,5	18,9		13,8	12.291,1	31.845,8	38,6
2003	12.578,7	15,0	18,9		13,8	12.626,4	35.587,0	35,5
2004	12.645,4	15,0	18,9		13,8	12.693,1	36.824,0	34,5
2005	12.906,1	15,0	20,1		13,8	12.955,0	38.843,5	33,4
2006	13.062,7	23,0	59,0		19,8	13.164,4	40.564,8	32,5
2007	13.394,9	23,0	147,5		21,2	13.586,6	40.835,7	33,3
2008	13.828,7	29,8	363,7		38,2	14.260,4	41.817,2	34,1
2009	14.553,3	77,2	791,6		65,0	15.487,1	44.761,2	34,6
2010	15.831,2	94,2	1.320,2		85,7	17.331,3	49.524,1	35,0
2011	17.137,1	114,2	1.728,7		104,2	19.084,2	52.911,1	36,1
2012	19.609,4	162,2	2.260,6		147,3	22.179,5	57.059,4	38,9
2013	22.289,0	310,8	2.759,7		178,0	25.537,5	64.007,5	39,9
2014	23.643,2	404,9	3.629,7	40,2	227,0	27.945,0	69.519,8	40,2
2015	25.867,8	623,9	4.503,2	248,8	277,1	31.520,8	73.146,7	43,1
2016	26.681,1	820,9	5.751,3	832,5	363,8	34.449,6	78.497,4	43,9
2017	27.273,1	1.063,7	6.516,2	3.420,7	477,4	38.751,1	85.200,0	45,5
2018	28.291,4	1.282,5	7.005,4	5.062,8	621,9	42.264,0	88.550,8	47,7
2019	28.503,0	1.514,7	7.591,2	5.995,2	1.163,3	44.767,4	91.267,0	49,6
2020	30.983,9	1.613,2	8.832,4	6.667,4	1,105,3	49.202,2	95.890,6	51,3

While Türkiye continues to make these efforts, its primary goal is to integrate into the international system and embrace the logic of sustainable development. The decision to sign the Paris Agreement will be a cornerstone in Türkiye's sustainable development process, providing new economic opportunities as well.

There are numerous overlapping features of Türkiye's Green Development vision and the Paris Agreement, which will be discussed in detail in the next chapter. The Paris Agreement's approach of "ensuring development with low greenhouse gas emissions while avoiding harm to food production" and "stabilising the financial flow on the path to low-emission and climate-resilient development" align with Türkiye's Green Development vision. At the same time, the Agreement's approach of "improving the ability to adapt and climate resilience to the adverse effects of climate change" highlights Türkiye's climate change strategy, which has prompted the Ministry of Environment and Urbanisation to change its name to the Ministry of Environment, Urbanisation, and Climate Change.

5.4. Türkiye's Climate Change Strategy (2010-2023) and Action Plans (2011-2023)

In order to implement the National Climate Change Strategy, which was prepared under the coordination of the Ministry of Environment, Urbanisation and Climate Change and adopted by the Prime Ministry High Planning Council on May 3, 2010, the Climate Change Action Plan (CCAP), which consists of the strategic principles and targets for 2011-2023 on greenhouse gas emission control and adaptation to climate change, was prepared and put into effect on July 2011.

The overall objective of the CCAP is to combat climate change by designating actions based on national circumstances to reduce greenhouse gas emissions, boost resilience through managing the effects of climate change, and thereby promote adaptation and climate change mitigation in Türkiye. The

CCAP analyses the greenhouse gas emission control and adaptation strategies to be implemented in sectors of first priority in the light of Türkiye's unique circumstances and mainly focuses on institutional structuring, long-term cooperation, technology development and transfer, and financing.

As part of the CCAP, the following subheadings are covered:

- Energy
- Buildings
- Transportation
- Industry
- Waste
- Agriculture
- Land Use and Forestry
- Common Intersectoral Issues

and 541 actions are designated.

Another key action plan in climate change, the Climate Change Adaptation Strategy and Action Plan (CCASAP), was also issued in 2011. The following sections are included in the CCASAP (For plans, see: (https://iklim.csb.gov.tr/eylem-planlari-i-306):

- Water Resources Management
- Agricultural Sector and Food Safety
- Ecosystem Services, Biodiversity and Forestry
- Natural Disaster Risk Management
- Human Health
- Common Intersectoral Issues

The Ministry of Environment, Urbanisation, and Climate Change coordinates efforts to update the aforementioned Action Plans with medium- and long-term targets for 2030 and 2053.

5.5. Regional Climate Change Action Plans

Türkiye is geographically divided into seven regions. While the climates of these regions vary, they all face the same threat of climate change. When deciding on the actions to be developed for Türkiye's seven regions, it is critical to thoroughly assess each region and city's economic, physical, and social conditions. To this end, the Ministry of Environment, Urbanisation, and Climate Change assessed each region individually and prepared *Regional Climate Change Action Plans (BİDEP).*

Sectors and areas with a high probability of being socioeconomically impacted, such as water resources, disasters, air quality, agriculture, animal husbandry, forestry, ecosystems and biodiversity, economy, health, tourism, energy, coastal areas, and urban infrastructure, were examined, and measures to be taken in response to the effects of climate change in the regions, as well as adaptation recommendations, were determined in the Regional Climate Change Action Plans (BİDEP).

In terms of *Water Resources Management,* it is recommended that, first and foremost, special plans be prepared for each lake, wetland, and river without disturbing the ecological balance by adequately examining the available groundwater and surface water resources in order to avoid future water deficit, that water purification systems be established and expanded, that measures be taken to reduce water loss and leakage rates during water use in order to achieve effective water management, that rainwater be harvested, that domestic and industrial wastewater be recovered, that efficient irrigation techniques be extended, and that studies and incentives to improve surface water quality be increased.

In terms of *Cities and Infrastructure*, it has been stressed that local governments of all provinces should first prepare Local Climate Change Action Plans (LCCAP) within the boundaries

of each region. It is recommended that housing along rivers, canals, stream beds, and coastlines be prohibited to minimise the potential risk of flooding, landslides, and overflows, that construction on mountain slopes be banned, that relevant technical specifications be drawn up, and inspections be conducted, that investment in existing drainage systems be undertaken, and new drainage channels be constructed, that necessary measures be taken after sewerage system controls, and that information related to flood areas and borders be shared with local governments, relevant institutions, and residents, that the capacity of existing bridges and canals be enhanced by re-inspection, that potential dangers be anticipated through the establishment of early warning systems, and that precautionary research be expanded.

In terms of *Air Quality*, it is recommended that provinces in each region properly implement their Clean Air Action Plans, that relevant studies on climate models and emission scenarios be conducted in order to mitigate climate change's adverse effects on air quality, and that weather trends be analysed from both a meteorological and an air quality perspective.

In terms of *Energy*, it is recommended that, first and foremost, the risk potentials of power plants within the scope of each region be determined, and necessary measures be taken, that climate change modelling be conducted and that investments in renewable energy be prioritised as a result of this modelling and renewable energy sources in the regions be assessed, that due diligence be paid to the design, licensing and inspection stages of the necessary measures to protect all systems and components of nuclear power plants under construction from potential threats such as floods, storms and droughts caused by climate change.

In terms of *Coastal Areas,* it is recommended that, first and foremost, the possible rise in sea level in coastal areas as a

result of climate change be monitored, that its effects on residential areas be assessed, that protection embankments such as waterway, flood barrier be constructed, that climatic data that provides input to hydrographic data, hydrodynamic data, etc. used in the design of structures needed by many sectors on the coasts (harbour, breakwater, piers, docks, coastal protection structures, underwater facilities, floating structures, etc.) be created and the necessary measures be taken.

In terms of *Health,* it is recommended that the adequacy of health facilities be assessed by examining previous disasters that occurred in the region and that necessary capacity enhancements be implemented, that the capacity of well-equipped healthcare teams against natural disasters be increased, that strategies for effective emergency response be planned, and the infrastructure be strengthened, that environmental health services be planned, that the capacity of research institutes in combating disease-causing microorganisms be increased.

In terms of *Disasters*, it is recommended that action plans be developed for disasters that may occur as a result of climate change. It is recommended that necessary measures be taken and inspections be carried out in relation to structures posing life-threatening risks, that settlement not be allowed in high-risk locations, that necessary infrastructure works in settlements be completed in order to prevent economic damage in the case of a disaster, that efforts such as afforestation and greening, which promote soil adhesion without altering the natural texture, be exerted to prevent potential landslides, landslips, avalanches, and other disasters, that disaster insurance be developed for all natural disasters, that disaster governance be implemented by developing national, regional, and local cooperation and coordination with disaster-related institutions and organisations.

In terms of *Transportation*, it is recommended that alternative transportation options, such as walking paths and smart bicycle applications, be developed to lessen pedestrian reliance on vehicles by promoting active transportation mechanisms that promote pedestrianism and bicycle use in urban transit, that efforts to reduce vehicle-borne emissions be exerted, that water transportation options connecting coastal settlements in the regions be expanded and efforts on the development of coastal transportation be encouraged.

In terms of *Tourism*, it is recommended that extensive research on the effects of climate change on the tourism sector be conducted throughout the regions, that the tourism sector's institutional capacity and inter-institutional collaboration in adapting to climate change be increased.

In terms of *Agriculture and Animal Husbandry*, it is recommended that extensive soil surveys be conducted, that research to identify alternative products for agricultural products that would be adversely affected by changing climate conditions be undertaken, that farmers' markets be established in each province in order to assure the sale of local products and that advanced irrigation technologies be popularised to combat the threat of drought, that action plans be developed to combat agricultural disasters such as agricultural frost, hail, excessive precipitation, and drought, that animal husbandry and fishery activities adapting to climate change, production strategies, studies for improving animal species and breeds be encouraged.

In terms of *Ecosystems and Biodiversity*, it is recommended that a detailed investigation of the increase in seawater temperature caused by climate change, the arrival of new species and its effects on the marine ecosystem be conducted, that changes in sea, lake, and river levels be monitored, that comprehensive investigation of the consequences of climate

change on agricultural and forest ecosystems be conducted and necessary measures be taken.

In terms of *Forestry*, it is recommended that measures be disseminated by conducting necessary investigations to decrease forest damage caused by forest fires, storms, insect invasions, and the formation of invasive species, all of which will be exacerbated by climate change and the risks to some valuable forest products and services, that close-to-nature management focusing on adaptation to climate change be strengthened.

In terms of *Economy*, the most critical economic sectors in the regions are analysed based on the climate scenarios. It is planned to carry out economic analyses regarding the vulnerability of these sectors to climate change, integrate the data acquired into the investment decision process, and diversify the region's economic activities in line with climate change. In addition to those plans, it is planned to analyse economic opportunities that will arise as a result of climate change and assess the economic effectiveness of adaption strategies in collaboration with the owners of local economic activity and other stakeholders. It is recommended that the potential consequences of climate change on general macroeconomic indicators (growth, income, employment, etc.) be dynamically analysed and reflected in national strategies/policies/plans, that an inclusive insurance premium policy be established by expanding insurance activities to all sectors, and the insurance rate be increased, that transportation infrastructure be developed in order to mitigate potential hazards in the transportation sector and to avoid disruptions in transportation.

In terms of *Sociocultural Structure*, it is recommended that maps be created by identifying disadvantaged groups that will be adversely affected by climate change (elderly, children, women, disabled persons, etc.) and potential sociocul-

tural losses as a result of climate change be minimised, that Social Impact Assessments be conducted in order to foresee possible climatic migration movements, whether forced or voluntary and to develop policies in response and a Mandatory Migration Action Plan be prepared, that a knowledge and capacity-building programme for adaptation be developed by analysing the cultural and ideological meanings attributed to climate change by society, that efforts be exerted for the development of urban and rural infrastructure, particularly in socioeconomically disadvantaged provinces of the regions.

In addition to these sectoral approaches outlined in the Regional Climate Change Action Plan (BİDEP) and briefly summarised here, it is clear that priority actions and measures have been identified for geographical regions. Priority actions have been described as follows:

1. Climate change effects will be factored into the spatial strategy plan and spatial plans at all scales.

2. In line with the goal of protecting human health and mitigating the urban heat island effect, studies will be conducted on exposure, prevailing wind direction, the establishment of air corridors, and increasing the amount of urban green space in urban planning and design.

3. Local governments in the region's provinces will develop Local Climate Change Action Plans (LCCAP).

4. Site selections will be made in urban plans to minimise the impact of extreme climatic conditions on public service facilities.

5. Disaster risk analyses will be conducted on critical infrastructure facilities such as drinking water, wastewater treatment, and waste storage.

6. Coordination with relevant institutions on early warning systems for the protection of life and property in regions prone to natural disasters will be assured.

7. The use of energy-efficient, climate-sensitive, and ecologically sound local architectural and local building materials for the construction of buildings in the region will be encouraged, and their dissemination will be promoted.

8. Culverts will be built along the coast using horizontal drilling to allow water to flow downstream to the sea, and the capacity of existing culverts will be expanded.

9. Structural Condition Assessments will be conducted to prioritise the removal of bridges within the jurisdiction of municipal governments that have reached the end of their economic life or that have an insufficient cross-section width.

10. Separate sewer systems will be employed for rainwater and sewage.

11. To mitigate the risk of flooding in coastal areas, equipment will be developed that will serve as a recreation park during normal times and as a buffer zone during times of flooding.

12. Within the framework of our Ministry's legislation and guidelines, the use of permeable materials and the construction of rainwater harvesting systems will be encouraged to reduce the negative effects of precipitation and enable the use of rainwater.

13. Hazardous structures in disaster-prone areas of the region will be identified, construction in these areas will be prohibited, and urban transformation activities will be carried out.

14. Buildings located near streambeds will be identified, and expropriation and transportation processes for eligible sites will be planned.

15. To avoid disrupting the natural structure of the streambeds, inspections of facilities operating in the region will be tightened.

16. Waste management and zero-waste practices will be expanded in the region.

17. Measures to control air pollution caused by industrial and urban activities will be intensified, and the Clean Air Action Plans available in the region's provinces will be effectively implemented.

18. The implementation of provincial marine litter action plans will be ensured.

19. Regular training and awareness-raising activities will be carried out for local governments and citizens to minimise the risks posed by disasters induced by climate change.

20. Temporal images will be provided in the designated regions to monitor the effects of climate change together with change analyses and submitted to the National Geographic Information System.

The involvement of central and local governments, as well as regional development agencies, academia, the private sector, and citizens, is critical in the implementation of the aforementioned actions and measures.

5.6. The Green Deal Action Plan 2021

The European Union, which plays a more active role in the fight against the climate crisis than other global actors, has defined the mechanisms of a permanent and effective transformation ever so clearly for the first time with the European Green Deal. As a candidate for EU membership and a Customs Union partner, Türkiye responds quickly to meet the criteria outlined in the Green Deal Action Plan and closely monitors the Green Deal's radical transformation process, which encompasses all sectors of the economy. The transformation process in question is likely to have significant effects on Türkiye's trade with the EU, its largest export market. As a result, the work of harmonisation with technical legislation must be pursued with determination in Türkiye.

Many concrete steps have been taken in both the public and private sectors within this context. For this purpose, the effects of targeted policy changes, primarily related to the EU, on industry, agriculture, energy and transportation policies in connection with Türkiye's foreign trade should be considered holistically, and a road map should be developed to ensure our country's adaptation by taking into account our country's Customs Union involvement. To this end, under the coordination of the Ministry of Trade, a Working Group was formed at the Deputy Ministerial level on February 4, 2020, with the participation of the Presidency of Strategy and Budget of the Presidency, Ministry of Environment and Urbanization and Climate Change, Ministry of Foreign Affairs, Ministry of Energy and Natural Resources, Ministry of Treasury

and Finance, Ministry of Industry and Technology, Ministry of Agriculture and Forestry and the Ministry of Transport and Infrastructure. In addition to technical meetings with the Working Group's member institutions, sector-specific discussions with private sector representatives took place. The need for change and transformation that the announced climate goals would bring to Türkiye was evaluated with the broadest possible perspective during the discussions, taking into account the close commercial and economic integration established with the EU under the Customs Union. The discussions focused on designing a road map that would ensure Türkiye's adaptation to the potential effects of the policies to combat climate change in the international trade order, as well as to protect and advance Türkiye's integration with the EU and the Customs Union, and an Action Plan was developed with the contributions of all the Institutions that are members of the Working Group. (For detailed information, see:https://ticaret.gov.tr/data/60f1200013b876eb28421b23/MUTABAKAT%20YE%C5%9E%C4%B0L.pdf)

The Presidential Circular on Türkiye's Green Deal Action Plan, which was developed under the coordination of the Ministry of Trade with the contributions of the relevant public and private sector parties, was published in the Official Gazette dated 16.07.2021 and numbered 31543. Under the circular, it is planned to effectively implement the objectives and activities outlined in the Action Plan in collaboration with the public, private sector, and all relevant stakeholders via the "Green Deal Working Group" established under the coordination of the Ministry of Trade. The Green Deal Action Plan, which includes a total of 32 goals and 81 actions under nine main titles, is expected to guide Türkiye's adaptation efforts in the field of green transformation.

The following statements are noteworthy in the Presidential Circular on the European Green Deal Action Plan:

"In line with the changes envisaged in the European Green Deal and EU policies, the transformation in international trade and economy, and our 2023 and development goals; maintaining and improving our competitiveness in our exports, which are the locomotive of our economy, is critical for strengthening Türkiye's integration into the global economy and supply chains with the advanced economic integration established with the EU under the Customs Union."

The "Green Deal Action Plan" will be a roadmap that is compatible with the transformation policies that are taking place in the world economy, particularly in the EU, encourages green investments, contributes to the transformation of global value chains, and thus supports value-added production. The international community's priority agenda during the recovery period following the Covid-19 crisis has been the development of a sustainable and inclusive global economy. In this process, in addition to efforts to limit and reduce human-induced greenhouse gas emissions, it has also become inevitable to deal with climate change in connection with other global problems such as economy, international trade, health, migration and security. The requirement for additional reforms at the global level to achieve economic growth while taking the climate agenda into account and encouraging investors and businesses to operate in accordance with a scenario that restricts global warming has brought the fight against climate change to the centre of international economic and trade policies.

For this purpose, a working group was formed on February 4, 2020, with the participation of the Presidency of Strategy and Budget of the Presidency, Ministry of Environment, Urban-

ization and Climate Change, Ministry of Foreign Affairs, Ministry of Energy and Natural Resources, Ministry of Treasury and Finance, Ministry of Industry and Technology, Ministry of Agriculture and Forestry and the Ministry of Transport and Infrastructure. This working group will closely follow the relevant developments, and all ministries and subsidiaries will take environmentally friendly steps.

5.7. Other Initiatives in Combating Climate Change

A number of government organisations have developed climate change action plans. Some of these plans have already been implemented, while others will be implemented as part of Türkiye's 2023 and 2053 targets, as well as a number of agreements signed by the country.

Among the policies and measures listed in the chapter entitled "Growth" in the ***New Economic Program for 2021-2023*** are sustainable growth and the production and export of value-added products. Policies and measures regarding foreign trade, listed in the chapter entitled "Current Account Balance" of the same program, include the following target; "Within the scope of the Türkiye-EU Customs Union, necessary work and preparations will be made in dialogue with the EU by coordinating the public sector, the private sector, NGOs and universities to ensure adaptation to the European Green Deal, regarding Turkish exports to the EU." (For detailed information: https://ms.hmb.gov.tr/uploads/2020/09/YEN%C4%B0-EKONOM%C4%B0-PROGRAMI-K%C4%B0TAP%C3%87IK.pdf)

As part of the ***"Economic Reforms Package",*** which was unveiled on March 12, 2021, and aims to achieve sustainable, strong and high-quality economic growth in line with the economic structure in the post-pandemic period, green Or-

ganised Industrial Zones (OIZ) are being established in order to ensure green transformation in industrial sectors. Drafting a national and circular economy action plan, supporting R&D efforts in order to develop and promote necessary technologies for green manufacturing, empowering the ecosystem that will enable the development of green finance, creating a sustainable and intelligent transport infrastructure are among the planned and already implemented actions in the Reform Package. (For detailed information: https://ms.hmb.gov.tr/uploads/2021/03/Ekonomik-Reformlar-Kitapcigi.pdf)

According to the document titled ***Foreign Direct Investment Strategy of Türkiye (2021-2023)***, it is critical for Türkiye to align its business environment, regulatory framework, and supplier base infrastructure with the Sustainable Development Goals and European Green Deal, particularly with the green economy and sustainable development context, in order to maintain and enhance its competitiveness in production and export-oriented FDI. The works of various institutions and organisations are included in this context. (For detailed information: https://www.invest.gov.tr/tr/library/publications/Lists/InvestPublications/Turkiye-Uluslararasi-Dogrudan-Yatirim-Stratejisi-2021-2023.pdf).

The significance of the green manufacturing approach in Türkiye's industrial policies and practices will be greater, as outlined under the chapter entitled "***Digital Transformation and Industry Move"*** of the ***2023 Industry and Technology Strategy***, which is currently being implemented by the Ministry of Industry and Technology. Technology-intensive modernisation of infrastructure and businesses, and new investments based on clean manufacturing practices, particularly in Organised Industrial Zones (OIZ), are being supported to reduce the environmental impact of industrial production. An Industrial Registry System is being developed in order to launch an ***"Economically Valuable Waste Tracking***

System" within the framework of the circular economy. Industrial symbiosis emerges as an approach that supports entrepreneurship and regional development with its potential to create new business areas, as well as innovation activities. According to the Strategy paper, efforts to expand industrial symbiosis areas in Türkiye will continue in collaboration with relevant stakeholders such as the Ministry of Environment, Urbanisation and Climate Change, OIZs, and Industrial Zones within the framework of the ***"Green OIZ Framework Development for Türkiye Project."*** Furthermore, it is stated that cooperation with the Ministry of Environment, Urbanisation and Climate Change will be maintained for the use of environmental fee revenues in financing investments by industries in the development of environmental protection and waste management systems and practices. (For detailed information: https://www.sanayi.gov.tr/assets/pdf/SanayiStratejiBelgesi2023.pdf).

With the ***National Energy Efficiency Action Plan,*** drafted by the Ministry of Energy and Natural Resources, Türkiye aims to make support models for energy efficiency more effective and develop sustainable financing mechanisms in light of its current needs and best practices in the world. ***"National Energy Efficiency Financing Mechanism"*** has been formed in order to provide additional financial support for implementing energy efficiency investments. (For detailed information: https://enerji.gov.tr/bilgi-merkezi-enerji-verimliligi-ulusal-enerji-verimliligi-eylem-plani)

Some of the goals defined in the ***Strategic Plan of the Ministry of Agriculture and Forestry 2019-2023*** include the following: raising the level of wealth in rural areas; ensuring stable food supply by increasing productivity and quality in agricultural production; ensuring food and feed safety in all processes from production to consumption, and taking necessary measures for plant and animal health and welfare.

Furthermore, the action plan includes goals such as preserving fisheries and aquaculture resources and ensuring their sustainable operation; providing sustainable management of land and water resources; effectively combating climate change, desertification, and erosion; and protecting biological diversity and ensuring its sustainable management. (For detailed information: https://www.tarimorman.gov.tr/SGB/Belgeler/stratejikplan.pdf.)

The ITS practices to be introduced as per ***The Intelligent Transportation Systems (ITS) Strategy Document and Action Plan (2020-2023)*** prepared by the Ministry of Transport and Infrastructure are expected to contribute to the reduction of emissions by creating a transportation system integrated with all modes of transportation in Türkiye, and one that uses current technologies in an efficient, sustainable, environmentally friendly, and intelligent manner. (For detailed information: https://www.uab.gov.tr/duyurular/ulusal-akilli-ulasim-sistemleri-strateji-belgesi-ve-2020-2023-eylem-plani-yayinlandi)

The comprehensive changes that will be introduced by the European Green Deal, which is at the heart of the action plan and has been announced by the European Commission, are expected to have a significant impact on Türkiye's integration with the EU within the scope of the Customs Union, both through the carbon regulation mechanism at the border and technical regulations in trade, unless the necessary policy measures in terms of harmonization are implemented. In this regard, as an EU candidate country and EU Customs Union member, the policies, strategies, and regulatory changes announced within the scope of the Green Deal are taken into account when determining the actions and goals in the action plan.

In this context, regarding the legislative preparations included in the action plan and in accordance with the Presidential

Circular No. 2019/22 on "Coordination of Work Related to the European Union," on matters within the tasks and responsibilities of government institutions and agencies; regulation drafts prepared for harmonisation with EU are being prepared in consideration of "The Guide on Principles to be Followed in Drafts to be Prepared for Harmonization to EU Acquis and References to be made to EU Legislation" on the official website of the Directorate for EU Affairs. Furthermore, it is critical to consider the views of the Directorate for EU Affairs.

Due to its geographical location, Türkiye is one of the countries that will be hit hardest by climate change, which is why Türkiye is contributing to efforts in the fight against climate change while upholding the realities of the country. In line with its position as a developing country, Türkiye is following a policy of green growth and restriction of the rising emissions trend. Adaptation efforts to climate change remain critical.

The measures taken or to be taken by other institutions and organisations in Türkiye can be outlined as follows:

Establishing the National Green Building Certification System,

Increasing efficiency in seaport operations, minimising environmental effects and supporting green seaport practices to secure sustainability,

Protection of public spaces in the cities, particularly open and green sites; increasing access and security; reorganising these areas within the human-nature relationship with attention to women, children, elderly and disabled people,

Improving the quality of life in line with the green city vision and opening Nation's Gardens to assure adaptation to climate

change and increasing the number of green areas in our cities,

Building healthy living spaces in our cities, spreading People's Gardens to 81 cities to improve the standards of urban green areas and quality of life, and completing their construction on 81 million square meters of green spaces until 2023,

Increasing the number of protected areas in the land and sea, establishing green corridors to manage these areas efficiently, and executing plans and infrastructure projects,

Reflecting sustainable development goals on policies and creating an effective tracking mechanism,

Reflecting sustainable development goals on sectoral and thematic policy documents in line with national priorities and conditions,

Seeking coherence with sustainable development goals in preparations of organisational strategic plans and sectoral and thematic policy documents,

Establishing a well-functioning and participatory institutional coordination mechanism in order to track and review sustainable development goals,

Establishing a National Sustainable Development Coordination Council with a flexible structure consisting of relevant public institutions as well as local governments, academia, private sector and NGO representatives under the leadership of the Presidency of Strategy and Budget in order to track and review the implementation of sustainable development goals at a national scale,

Expanding the scope of the national index set in terms of priorities in parallel with the global sustainable development goals index set,

Establishing national sustainable development goals tracking and review system.

5.8. Steps Taken in Türkiye within the Past 20 Years as Part of Green Development

While keeping an eye on international commitments and processes, Türkiye outlined a vision for itself on the green economy, sustainable development and renewable energy fields and has been in an effort to realise this vision. Embracing a sustainable, extensive, balanced and environmentalist development approach, Türkiye believed this approach would counterbalance the disparity in the distribution of national income among different groups and regions. The importance of sustainable nature in reassuring fairness and equal opportunities for current and future generations is obvious. Türkiye approaches nature with a sense of responsibility for future generations and views it as a legacy. Considering international agreements as the collective accumulation of humanity, Türkiye agrees that a gigantic problem such as climate change cannot be solved without international agreements like the Paris Agreement. Nevertheless, Türkiye had already taken various steps toward a green economy and sustainable development prior to joining the Paris Agreement.

Zero-waste policy and green energy drive, smart building legislation, resource efficiency efforts, clean technology innovation, renewable energy incentives, heirloom seed support, and organic agriculture regulations, bioenergy agricultural supports, electric vehicle and new technology investments, wind/geothermal/solar energy incentives, green transportation enterprises, green design and construction regulations, and incentives for clean energy (solar energy) use in households are all examples of Türkiye's firm belief in the green economy and the value Türkiye gives to environment. By taking these steps, Türkiye prioritises its responsibilities to its own citizens and the world over simply adhering to an agreement's commitments.

The Zero-Waste Project, which went into effect with a regulation on July 12, 2017, served to raise awareness among all stakeholders in the field of waste management. Thanks to Zero-Waste efforts, which our President's spouse, Her Excellency Emine Erdoğan, regards as a trailblazer in Türkiye's green transformation, significant achievements have been marked in the protection of natural resources and transition to the circular economy. Public institutions, in particular, have emerged as pioneers in both structural transformations and education about zero-waste initiatives. Through public service announcements and other means, society is being educated and informed to keep pace with this transformation.

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TÜRKİYE'S 2053 GREEN DEVELOPMENT VISION

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TÜRKİYE'S 2053 GREEN DEVELOPMENT VISION

It is an obvious fact that climate change is a problem that transcends borders. Türkiye views climate change not as an environmental issue but as a development and national security issue, which will have a profound impact on a wide variety of sectors. It is now a fact supported by scientific data that the current state of our world is a result of the wild development model adopted by the developed countries, in which they grow without regard for air, water, or land and consume excessively. This model has brought about floods across Asia and Europe, drought across Africa, hurricanes and wildfires across the Far East and Americas. Wildfires have increased by 30% in the last century as a result of global warming. Worldwide, new high-temperature records are being set, with the number of days exceeding 50°C doubling in the last 40 years. Türkiye, located in the Mediterranean Basin, is also experiencing its share of large-scale disasters induced by climate change.

In the process of adaptation to the Paris Agreement, Türkiye has declared that the year 2053 will mark the year when the country's net emissions will be zero. To that end, significant steps will be taken to balance the harmful effects of greenhouse gases produced by fossil fuels with the beneficial

effects of healthy seas and green spaces. This balance will be achieved by protecting our seas and expanding forests and protected areas. The Net Zero Emissions target will be achieved profitably, thanks to new policies, technologies, and lifestyles in all areas shaping the Turkish economy, from energy production to agriculture, from transport to trade, and from industry to waste management. This way, the dual goals of increasing national income, and expanding exports, will be achieved along with Green Development Initiative.

Türkiye is aware of the fact that preservation of the environment and development are inextricably linked concepts. Integration into the low-carbon economy is a red line for Türkiye. Countries that disregard green development principles in pursuit of short-term gains will not only harm the world but also themselves. Climate change will not only result in significant economic losses in these countries due to extreme weather events and disasters, but they will also suffer economically as a result of their inability to benefit from the new employment opportunities created by the locomotive effect of the Paris Agreement. Türkiye, which incorporated the concept of "green jobs" into its development strategy with the 7th Five-Year Development Plan (1996-2000), officially recognised that environmentally friendly activities undertaken as part of labour force and industrial sector capacity development had beneficial effects on employment and production.

At this point, it is clear that the 11th Development Plan (2019-2023) places a premium on transformation in economic and social structures. This plan emphasised nature protection and energy conservation, as well as sustainable development goals (SDGs). Some examples of these goals include the establishment of a National Green Building Certification System, the organisation of cities in line with the green city vision, and the establishment of a well-functioning and participatory institutional coordination mechanism for tracking and

reviewing SDGs. When it comes to climate change and green economy efforts, Türkiye has been careful to adhere to and adopt international agreements and work toward them even if they are not yet signed. Türkiye is confident in its ability to achieve its Green Development goals, thanks to the roadmap established by framework plans such as the Paris Agreement, the Green Deal Action Plan, and the 2053 Vision. All work has been planned to keep up with this vision in both the public and private sectors.

In this context, Türkiye will organise a climate council meeting in January 2022, and a long-term strategic action plan will be put forward, together with the private sector, non-governmental organisations, universities, industrialists and international organisations. At this point, the preparations for the Climate Law and the initiatives for establishing the Emission Trading System are underway. Also, under the supervision of the Turkish Environment Agency, a mandatory deposit will be introduced in 2022. Green areas and forests, in other words, sink areas, will be expanded by creating 400 People's Gardens and ecological corridors. In addition to these, the efforts to expand the natural protected areas and make the bicycle paths and green walking paths more widespread continue. By spreading smart city and zero waste practices all over Türkiye, energy-efficient and climate-sensitive residential areas are being established. While there are significant efforts on renewable energy, which is one of the most important pillars of the green economy, work is also underway to expand the country's green energy capacity. In each of the 81 cities of Türkiye, industrial estates are moved out of the city to create **sustainable, climate-friendly campuses whereby they will recycle their waste and provide benefits to air, water, employment and production**. In order to foster awareness among young people, a Climate Ambassador will be chosen from each university, and the campuses of all 207

universities will be transformed into "Climate-Friendly Campuses" with the contribution of young people. Each student will be a part of the green transformation, and goals will be set to achieve "Zero Waste Universities". Environmentally friendly technologies developed by academicians at universities will be supported, and these technologies will be used in all areas possible.

In addition to its national transformation and in line with the principle of "International Cooperation for a More Liveable World", Türkiye considers it a humanitarian duty and a debt to future generations to support the green transformation of the entire world in the fight against climate change. The achievement of the Net Zero Emissions target is not only essential for Türkiye but also for the whole world in order to make it more liveable. Therefore, raising awareness on the importance of combating climate change should be the most urgent and important item on the world's agenda. At this point, Türkiye has the power, knowledge and experience to play an active role in international processes, in addition to fulfilling its duty. With this sense of responsibility, under the leadership of our President Recep Tayyip Erdoğan, Türkiye will use its strategic thinking and abilities in the environment and climate diplomacy, as well as all its consultation mechanisms, to provide its international support to achieve this goal. As stated by our Honourable President, Türkiye is the only country that has the power to be the protector of all disadvantaged countries, the oppressed and those suffering, especially the small island countries such as Madagascar, in the fight against climate change. Türkiye is willing to take its efforts to the next level with its entire means in line with the Green Development Initiative and the 2053 Net Zero Emissions target, and it has an important capacity in this respect. It is vital to start designing the future today. These issues are our shared responsibility so that we can provide more prosperous conditions for both current and future generations.

Türkiye's Green Development Initiative


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