

# DEVELOPMENT OF THE EUROPEAN UNION'S ENVIRONMENTAL POLICY AND ITS MEASURES FOR CLIMATE PROTECTION – A REVIEW

Zoltán Gabnai<sup>1\*</sup>

<sup>1\*</sup> Department of Business Economics and Business Development, Institute of Applied Economics, Faculty of Economics and Business, University of Debrecen, 4032 Debrecen, Hungary; gabnai.zoltan@econ.unideb.hu

**Abstract:** *The negative impacts of human activities on the environment and nature can be felt worldwide. Thus there is a growing focus on measurements that keep sustainability in mind. As one of the main pioneers of environmental protection and sustainability efforts, these aspects are more and more prevalent in the current environmental policy of the European Union (EU). In this review article, the development of the environmental policy of the EU is presented. After listing the main milestones, the role of the EU in the area of environmental protection, the frameworks built around the goals and the roles of the institutions are discussed. Then – with an international detour – the details of the Paris Agreement about climate change and the state of the 20/20/20 commitments are summarised. In the remaining parts of the article, the focus is on the climate protection goals of the EU for the next three decades, the expected future directions, and the agenda of the von der Leyen Commission concerning climate protection. An important step and tool for achieving the goals set until 2050 is to incorporate climate and environmental protection elements to the 2021-2027 budget of the EU. In order to achieve the expected effects, it is crucial to develop the right tools of the environmental policy, to form a widespread cooperation, to raise awareness, and incentivise and support the innovative solutions in the sustainability area.*

**Keywords:** *climate action; environmental strategy; Paris Agreement; sustainability*

JEL CODE: K32 Energy, Environmental, Health, and Safety Law; Q56 Environment and Development, Sustainability

## INTRODUCTION

The increasing level of climate change and pollution that can be observed on Earth affects our everyday life more and more. Since the first measurements, we witnessed the 18 warmest years in the last two decades, and extreme weather events are increasingly frequent in Europe, as well as in other areas of the planet (EC, 2021a). These extreme weather events include forest fires, heatwaves and floods. Scientists warn us that if we do not act with urgency, by 2060, due to global warming, the average temperature is likely to be over 2 °C more than before industrialism, and by the end of the century, even a 3-5 °C increase is possible (REUTERS, 2018; EC, 2021a). Such a degree of global warming would have an incredibly destructive effect on nature; it would effect irreversible changes in several ecosystems, which would cause a significant decrease in biodiversity. The higher values of temperature and the more intense and more frequent weather

events and extremities are expected to have an enormous impact on the economy of the EU, and to make the production of food more difficult. Although the severity varies by country and region, it is highly affected by the pollution that is a byproduct of the increasing economic production, rising population and quality of life. Despite different energy-saving measures, raising living standards requires more and more energy (BAI, 2004, BAI, 2011). The symptoms of this are the most apparent in developing countries, although it is definitely a global issue.

The EU – as one of the most important pioneers of environment protection and sustainability efforts – drew up its first version of environment protection and action programmes in the 1970s, noting the negative environmental effects that came with economic growth. The goal of this article is to explore the route of development taken by the EU, including the main milestones, frameworks, institutions, roles, the results achieved and the short, medium and long term goals.

The events of the next period, carrying out the goals is of crucial importance regarding the living conditions of the future generations.

This work was based on secondary research: the materials that have been processed include scientific articles and books about the past of the European Union, and the latest international publications, articles, and press materials dealing with the present situation and future plans. In this review article, in addition to analysing and assessing the publications on the environmental policy of the EU, the details of the development of the area, as well as the expected future directions, are covered.

## 1. THE ENVIRONMENTAL POLICY OF THE EU, ITS MAIN CHARACTERISTICS AND SCOPE

In the 1950s, at the time of the creation and adjustment of the Treaty of Rome, the founding member states hadn't yet thought that forming a community level environmental policy was necessary or important. However, the rapid economic growth, industrialisation and the growing energy consumption and pollution that came with those have prompted the need to start a community cooperation. The Paris summit held in October 1972, at which the heads of states and prime ministers decided to create a community level environmental policy, which was the first official moment of the environmental policy of the European Union (EU). As a result, the elaboration of the common environmental rules and the launching of action programs started. Following the first (1973) and second (1977) action programs of moderate effect, in 1983, at the third action program, the goals and fundamentals of the common environmental policy started to take shape. This policy pointed out the importance of pro-action/prevention instead of reacting to the emerging damage and results as a – still relevant – principle. Its message is the significance of intervening in time and eliminating the causes instead of focusing on the results and symptoms (HORVÁTH, 2007).

The subsequent main events (noting down the years of their signing) of the environmental policy and their significance are the following:

- 1986: The Single European Act, the first reworked version of the Treaty of Rome, in which articles regarding the protection of the environment were published, thereby the communal environmental policy and its goals were institutionalised in order to create a direct legal basis to the common environmental policy measures (HORVÁTH, 2007),
- 1992: The Maastricht Treaty, a.k.a. the “Treaty about the European Union”: extending the scope of the environmental policy, turning the concept of sustainable development based on environmental aspects into a principle (HORVÁTH, 2007),
- 1997: The Amsterdam Treaty: another main principle is that during the creation of policies and determination/execution of actions, the environmental requirements and effects must be taken into account (HORVÁTH, 2007),

- 2007: Lisbon Treaty: The fight against climate change emerged as a new element; moreover, the decision to create a Union-wide energy policy was made. Through this, a direct link between the environmental policy and energy policy was formed (HORVÁTH, 2007),
- 2009: The 2020 Climate and Energy Package: the creation of additional laws that make it possible to reach the goals set for 2020 in the areas of climate change and energy policy (EU, 2009).
- 2016: Paris Agreement: the elaboration and signing of an action plan aimed at limiting climate change and global warming by all of the EU member states. A detailed layout of its aims will be supplied in the next chapter (EU, 2021a).
- 2019: European Green Agreement: A communication released by the European Commission that aims to manage the challenges in the areas of climate and nature preservation. It covers a wide range of Union policies and affects several sectors. Additionally, it foresees a series of legislatures aimed at reaching climate-neutrality by 2050 (OH, 2020).

As it can be seen from those listed above, the environmental objectives and provisions of the EU have been developing continuously since 1972, they have been drawn up in a more specific way, and their integration to various policies and operations has become more specific. The Union environmental policy aims to implement a “high-level defence”. Based on the 191-193. articles of the Treaty regarding the operation of the European Union, the four related principles are the following: (1) the principle of precaution; (2) the principle of pro-action/prevention; (3) the principle of preventing natural damage at their source; (4) the principle of “the polluter pays” (BOURGUIGNON et al., 2019).

During the joint environmental protection operations, apart from the goal of achieving high-level defence, the differences between the regions of a community and their characteristics must also be taken into account. In accordance, the following additional principles can be mentioned: the principle of integrity; the principle of subsidiarity; the principle of sustainable integrity; the principle of partnership; the principle of integrating environmental protection approaches; the principle of the state taking responsibility; the principle of international cooperation; the principle of personal and collective partaking and cooperation; the principle of long-term thinking; the principle of shaping the environmental protection according to plan; the principle of maximal protection and precaution (HORVÁTH, 2007).

### The role and fundamental scopes of the EU

Below are the scopes fitting the goals set by the EU in the area of environmental protection. The related main sections and their details: a. Environmental measurement/action programs; b. Horizontal strategies; c. International environmental protection collaboration; d. Environmental

protection impact assessment and the participation of the public; e. Execution, validation and tracking.

a. Environmental measurement programmes (action programmes)

Starting in 1973, the Committee released multi-year environment action programmes (EAPs), which set the current goals and legislative proposals for the joint environmental politics. In the series of EAPs, the first primary goal was to mitigate the environmental effects and damages, but starting in the 1980s, the tasks started shifting towards prevention-focused proposals and actions. So far, the EU has launched seven action programmes, each having a length of 4-10 years. The currently running action programme (titled “Well-being without consuming our planet”, for the interval between 2013 and 2020) was accepted by the Committee and the Parliament. The programme lays down nine primary goals. These are the protection of nature, the stronger ecological resilience, the sustainable, resource-efficient and low carbon dioxide emission growth and the fight against the dangers related to nature that pose a risk to health (KURRER, 2020).

b. Horizontal strategies

The EU introduced the strategy concerning sustainable development in 2001, complementing the prior Lisbon strategy, which was aimed at growth related to the environment and facilitating the creation of workplaces. The aim of the strategy, which was renewed in 2006, is to consistently increase the quality of life by supporting environmental protection and the cohesion of society. In harmony with these goals, the strategy “Europe 2020” urges the implementation of “intelligent, sustainable and inclusive growth”. In the strategy, the flagship initiative called “resource-effective Europe” is aimed at sustainable growth, and additionally, it supports the transition to resource-efficient, low carbon-dioxide emission agriculture (KURRER, 2020). The headline target of the EU is to harmonise the various strategies, take advantage of the synergies and continuously address the environmental aspects.

c. International environmental protection collaboration

While carrying out its own “internal” objectives, the EU also fulfils an active role in the global environmental protection conferences. It is a party to several global, regional and subregional environmental protection agreements. It takes responsibility in solving issues regarding environmental protection, biological diversity, climate change and international air and water pollution, among other things (KURRER, 2020). The EU took up an active role in creating such agreements as the sustainable development schedule regarding the interval ending at 2030 (with 17 global goals (Figure 1.) and 169 objectives) (EC, 2019a) or the Paris Agreement concerning climate change.

Figure 1. Sustainable Development Goals of the United Nations



Source: United Nations, 2015

These goals were adopted by all United Nations Member States in 2015 in the 2030 Agenda for Sustainable Development.

d. Environmental protection impact assessment and the participation of the public

In order to incorporate and take into account the environmental considerations and to avoid the negative environmental impacts, environmental impact assessments (EIAs) must be carried out on projects in the private or public sectors that are expected to have a significant impact on nature (e.g. highways, airports, constructions). Additionally, strategic environmental assessments (SEAs) must be carried out on projects in the public sector that concern land usage, travelling, energy, waste or agriculture. The importance of consulting the public and ensuring other related rights (taking part, accessibility, justice) was raised as an essential consideration (KURRER, 2020).

e. Execution, validation and tracking

The process of drawing up the environmental protection type regulations of the EU and its regulatory context has been continuous since the 1970s. As of now, there are hundreds of directives, regulations and decisions in effect. However, despite the communal principles and regulations, the state of the environmental cases is greatly affected by the – often lacking – national, regional and local level applications. Tracking is of vital importance because of the previously mentioned facts (KURRER, 2020).

The following relevant actions have been made to achieve more effective execution (and validation):

- 1990: Creating the European Environment Agency (EEA, Copenhagen), the goal of which is to support the development, execution and evaluation of the environmental policy and to inform the public about these. Through the process, the Agency supplies independent and reliable information, collects data, creates analyses, and coordinates the European Environment Information and Observation Network (Eionet).

- 1998: To support decision-makers and policy-makers, the EU has created and is operating the European Earth monitoring programme (Copernicus), the purpose of which is to monitor the changes happening on land, in the sea, atmosphere and climate. A related register is the European Pollutant Release and Transfer Register (E-PRTR), which notes down the release of industrial and other types of pollution-related data.
- 2011: The European Parliament and Council accepts the non-mandatory recommendation about the environmental analyses minimum requirements. The member states must apply effective, proportionate and dissuasive penalties and sanctions in the cases of the most severe environmental damages and actions. Additionally, the creation of IMPEL (European Union Network for the Implementation and Enforcement of Environmental Law) for effective information exchange.
- 2016: Starting to review the execution of the environmental protection policies, the primary goal of which is to contribute to the complete execution of the environmental protection laws of the Union, additionally it also includes the condition survey of the tracking and reporting obligation based on the laws in effect (KURRER, 2020).

## LEGAL FRAMEWORK

To this day, the European Community, then the EU has created hundreds of environmental protection laws. The types and significance of the laws in practice in the EU (HORVÁTH, 2007):

- Directive: the most commonly used type (approximately 80% of the laws). It describes general objectives and directives. Each member state can decide how it will reach the set goals.
- Regulation: sets specific, mandatory steps for the member states. All laws that go against it have to be withdrawn by the member states.
- Decision: these are used to complement directives and regulations. Their application is mandatory.
- Recommendation: not mandatory documents.

The environmental protection laws touch on varying topics that can be categorised into the following areas (BOURGUIGNON et al., 2019):

- Air
- Chemicals
- Climate
- Nature
- Waste
- Water

## THE ROLE OF THE EU INSTITUTIONS IN THE AREA OF ENVIRONMENTAL PROTECTION

Out of the Union institutions, the environmental protection policy, and in shaping the laws, the European Parliament has significant influence. As it can be seen from the points above,

the area of environmental protection has been undergoing continuous development in the EU since the 1970s. In the last (8.) period, the main priorities of the Parliament were the following:

- the action plan about the circular economy (about waste, batteries, worn-out vehicles, landfills etc.),
- climate-related questions (ratifying the Paris Agreement, distributing the efforts, including land-use, land-use change and forestry in the Union's climate change-related commitments, reforming the emissions trading scheme).
- the regulation of other questions (KURRER, 2020).

Based on the resolution of the Parliament, in the future – using various incentives – more attention must be paid to better and more effective execution, and it is also crucial to finance investments supporting the environmental policy and the fight against climate change (KURRER, 2020).

The EU Council also plays an important role. It has a vital part in the negotiation process and the conclusion of the agreements related to environmental protection matters: it represents the Committee based on mandate at hearings, and even at the signing and acceptance of the Agreement(s) in the name of the EU. Apart from representing the EU, it helps the countries outside of the EU and the international organisations form and conclude agreements. In addition to accept and conclude agreements/treaties, the Council can also suspend or even terminate them (EU, 2017). The role of the European Council is to provide guidance for the EU's policies (EU, 2021b).

Prior to the negotiation and hearing process related to international agreements, the Committee gives the Council (and the Parliament) recommendations and proposals, and the EU is regularly represented by the Committee (or the Council by mandate).

The Council and the Committee are both responsible for checking if the Agreement under discussion is compatible with the current inner policies and regulations of the EU (EU, 2017).

Based on the above information and the efforts made in order to elaborate and execute the various policies and actions, it can be said that the EU is the most significant global driver of the environmental protection and climate protection areas.

## 2. THE PARIS AGREEMENT ABOUT CLIMATE CHANGE

The Paris Agreement was adopted at the conference of the United Nations Framework Convention on Climate Change (UNFCCC) members in 2015 and entered into force on 4 November 2016, following its signing on 22 April 2016 (Earth day) (EU, 2021a). The requirement for it to enter into force is that at least 55 countries responsible for at least 55% of the global greenhouse gas emission must ratify it. By the middle of 2021, 195 countries have signed it, and 189 countries have ratified it. The majority of the countries and all EU member states have signed and ratified it (EU, 2021a). Apart from the plans aimed at the climate-neutral goals for 2050 discussed



in the next paragraph, in the long term emission-lowering strategy, the EU has committed to lowering the net greenhouse gas emission by at least 55% by the 2030s (UNFCCC, 2021).

The case of the United States of America can be mentioned as a curiosity: The agreement entered into force on 4 November 2016, but Donald Trump, the president of the USA announced that the country would back out of the agreement on 1 June 2017. Following the rules of the agreement, the USA officially backed out of the agreement on 4 November 2020, 3+1 years after the entering into force. However, only two and a half months later, Joe Biden, the new president of the USA joined it again through a presidential decree on the day of his inauguration, 20 January 2021 (AP, 2021).

The main elements of the action plan aimed at limiting climate change and global warming are the following:

- long term objective: keeping the yearly average temperature rise below 2 °C, compared to the pre-industrialisation level, and making efforts and carrying out actions in order for the raise to only be 1.5 °C,
- contributions: creating and discussing a comprehensive national climate policy for the partaking countries in order to lower emissions,
- ambition: creating and communicating action plans with increasingly ambitious goals every five years,
- transparency: the countries continuously inform each other and the public about how the progress is to achieve the set goals,
- solidarity: the EU member states and other developed countries continue to financially support the fight against climate change in the developing countries (including emission-lowering and resilience) (EU, 2021a; EC, 2020a).

### 3. THE STATE OF THE EU 20/20/20 COMMITMENTS

The 2020 climate change and energy policy package of the EU – which contains the laws that complement reaching the climate change and energy policy goals – has phrased three main objectives:

Lowering the greenhouse gas emission of the EU by 20% compared to the 1990 level,

- the energy gained from renewable energy sources (wind, solar, biomass, etc.) makes up 20% of the EU's energy consumption,
- 20% energy efficiency increase in the EU.

The “20-20-20” goals were aimed at the fight against climate change, increasing energy security, and strengthening competitiveness (EU, 2009; EC, 2020b; BALOGH, 2020; ŠIRÁ, et al., 2021).

The state of completing the commitments shows a mixed picture: Two have been fulfilled, one has not. Concerning lowering the greenhouse gas emission, by 2019 the objective of 20% has been surpassed (24%), while COVID-19 made it even easier to reach the goal in 2020. The European Environment Agency (EEA) report means that the climate policy actions

were effective, and even stricter emission lowering goals could be reached. The goal related to the 20% ratio of renewable energy sources is expected to be met based on the 2019 value of 19.4%. The primary renewable energy sources are water energy, biomass, wind energy and solar energy. However, the goal of increasing energy efficiency by 20% is unmet, as expectedly, only nine member states will fulfil it (GREENDEX, 2020; TAYLOR, 2020). Therefore, more actions are needed related to the latter goal, while for the other two goals, there is great further potential in increasing the situation, which is necessary to reach the longer-term climate protection goals and avoid and mitigate the adverse environmental effects.

Data regarding the goals that have been met are significantly distorted due to the COVID-19 pandemic, because of the economic downturn, and lower energy consumption and greenhouse gas emission.

### 4. THE CLIMATE PROTECTION GOALS OF THE EU UNTIL 2050

The climate protection goals of the EU for the period until 2050 were first noted down officially and got widely published in the Paris Agreement that entered into force on 4 November 2016. In harmony with it, the objective of the Union's countries is to set the EU on a course that makes it possible for the EU to become the first climate-neutral economy and community by 2050 (EU, 2021a; TSIROPOULOS et al., 2020; EC, 2021b). The Union leaders approved the objective in 2019 December, recognising the importance of adapting to a cost-effective, socially balanced and fair way, considering the different traits and national environment (EU, 2021a).

The Paris Agreement was followed by the European Green Agreement published by the European Commission on 11 December 2019. In the agreement document, the European Commission described the initiatives and proposals that are expected to support and guarantee the EU's goal to be climate neutral by 2050 (EU, 2020a; EC, 2019b). It also contains a series of legislatures that follow a previously recorded roadmap and covers a wide range of Union policies (OH, 2020). The Agreement stresses the importance of close cooperation with the member states and a holistic approach, which means that every Union actions and policies contribute to achieving the Green Agreement's goals and maximally utilise the opportunities. The areas include climate policy, environmental protection, energetics, travelling, industry, agriculture and sustainable financing (EU, 2020a). According to the concept, the EU will continuously and drastically lower its greenhouse gas emission until 2050. The public and private investments supporting climate protection and the spread of clean technology are mentioned as a base requirement for a successful transition, and so is the implementation of climate policy aspects in various policies. For this, the following financial framework of the EU (for 2021-2027) must be in harmony with the goals defined (EU, 2021c). In the light of the preceding, the now beginning 2021-2027 budgetary period, the execution and maintenance of actions and operations

related to climate protection have a significant role with a large budget assigned to them (EC, 2020c).

In order to give a picture of the goals, below is a list of the objectives of the European Green Agreement:

- Increasing the 2030 and 2050 climate protection efforts of the EU
- Mobilising industry for an environmentally friendly and sustainable economy
- Speeding up the adaptation to sustainable and intelligent mobility
- Clean, affordable and safe energy supply
- Protecting and restoring the biological diversity of the ecosystems
- Energy and resource-efficient building and modernisation
- The non-pollution objective for an environment without toxic substances
- Farm to Fork: the creation of a fair, healthy and environmentally-friendly food system (OH, 2020)

Further plans and tools include Sustainable Europe Investment Plan, Just Transition Mechanism, European Climate Law, European Industrial Strategy, Action Plan for the Circular Economy, Farm to Fork Strategy, Strategy for Restoring the Biological Diversity (OH, 2020).

The temporary political agreement related to the European Climate Law achieved in the spring of 2021 by the negotiators of the Committee and the European Parliament can be mentioned as a recent positive outcome. This way, the EU can define the climate neutrality and emission minimisation goals in the Paris Agreement in legislation. According to João Pedro Matos Fernandes, the climate policy minister of Portugal, the Agreement is an essential step in the life of the Union, which – apart from being a strong message to the world before the Climate conference on 22 April 2021 – allows the European Commission to propose the “Fit for 55” legislative package (EUC, 2021). Based on the aforementioned temporary agreement (1) in order to reach the 2030 target values, emission-lowering must be prioritised above absorbing, (2) it is necessary to create a European Scientific Advisory Board, the role of which is to advise and make reports related to the Union’s climate policy actions, goals and budgets, and (3) hurries the European Commission to submit a proposal concerning the climate policy goal to be met by 2040 (EU, 2021c).

#### **The agenda of the Von Der Leyen Commission regarding climate protection**

The role of the EU as a pioneer of climate protection actions still seems assured after Ursula von der Leyen took office on 1 December 2019, who considers the next decade crucial in minimising CO<sub>2</sub> emission (EC, 2021c). The most important details that have an impact on the EU from the events of the online climate conference that took place on 22 April 2021 are the following: President Ursula von der Leyen has underlined that the EU will begin the reformation of its carbon dioxide market in June 2021 in order to make the

economic sectors greener. In addition that the EU expands the carbon dioxide emission trading scheme (ETS) to the buildings and transport sector (MTI, 2021a; REUTERS & ABNETT, 2021; EURACTIV.COM & REUTERS, 2021).

The government change in the USA that took place in January 2021 can also give new impetus to one of the most crucial climate protection efforts, which includes forming stronger cooperation and partnership between the USA and the EU. Based on the statement of John Carry, special envoy of the USA for climate action, the relaunched cooperation between Washington and Brussels is an excellent chance to reform the economic models, create a greener economy, and push clean technologies forward (MTI, 2021b). Joe Biden, president of the USA, has also set out an ambitious goal at the climate conference, according to which the USA will decrease its greenhouse gas emission by 50-52% by 2030 compared to that of 2005 (VOLCOVICI et al., 2021).

The direction is therefore set; however, it is expected to be slowed, limited by prioritising the management and mitigation of the economic and social difficulties and problems caused by COVID-19. Despite this, the UN climate conference to be held this year in Glasgow is expected to be a key event for the climate and nature protection efforts, and it can be said that also for the Earth’s future.

#### **5. THE IMPLEMENTATION OF THE CLIMATE PROTECTION ASPECTS IN THE BUDGET OF THE EU FOR THE 2021-2027 PERIOD AND THE ROLE OF GREEN INNOVATION IN THE DEVELOPMENT GOALS OF THE EU**

The green transition guaranteed by integrating the sustainability and climate protection aspects into various Union policies and creating a sufficient financial framework is closely related to the field of innovation.

The 2021-2027 financial framework that was accepted on 17 December 2020 – in addition to supporting getting out of the COVID-19 pandemic – the main objectives of the various policies and areas get a significant role.

The multi-year financial framework of €1,074.3 billion and the rehabilitation tool “Next Generation EU” of €750 billion (EU, 2021d) envisages a budget of €1,800 billion for the EU-27. According to the Council of the European Union, 30% of all expenditure should be for environmental issues (EU, 2021e).

One of the main objectives of the EU is supporting the research and innovation areas, which get significant resources in the new budgetary period. In the battle against environmental and air pollution, which are prioritised global challenges, strengthening the scientific and technological network of Europe is crucial. In order to achieve the goals mentioned earlier, the framework programme “European Horizon” was created (approx. €76.4 billion), which is the subsequent research and innovation programme of the Union (EU, 2021e; EC, 2020d). Its vision is handling climate change, supporting the sustainable development goals and increasing the competitiveness and growth of the Union.

The importance of the vision is shown by the fact that the third pillar of European Horizon supports the progress in innovation, and for this purpose, the European Council of Innovation was formed, which makes it possible for innovators with immense potential to have access to one-stop-shop (EU, 2020b).

## SUMMARY AND CONCLUSIONS

In this article, the development of the EU's environmental protection policy, its direction and main milestones were described, mentioning the frameworks, institutional roles and scopes. It was followed up by presenting the main characteristics of the climate change-related Paris Agreement, then the 20/20/20 commitments of the EU, and their completion. In the last paragraph, the climate protection goals of the EU for the following decades and today's current issues and happenings from a policy and a public viewpoint were discussed. The importance of environment and climate protection, their connection to the area of innovation, and implementing them to the 2021-2027 budget of the Union were also included.

The EU started to prepare the legislative background related to environmental protection and sustainability in the 1970s. From the formulation of the idea of a community-level environmental policy, and the decision to develop it, events accelerated. Different agreements were prepared on average every five years from the 1980s to the present day. Among these, the first step was to measure the state of the environment and then eliminate the adverse effects, reduce the damage and make sanctions. Subsequently, besides the above, the importance of prevention also came to the fore, and the integration of environmental considerations into various policies emerged as an essential element. After the Millennium, the fight against climate change appeared as a new element in the Lisbon Treaty in 2007. After the direct connection between human activity and climate change was identified, several targets have been set at both EU and national levels; furthermore, various action plans and strategies have been drawn up.

The significant efforts made and directions laid, the connection of environment and climate protection and innovation and their prioritised role are definitely welcome in these times. In the future, environmental protection and sustainability are expected to come to the fore gradually. No question that the EU will continue to be possibly the main driver and pioneer of climate protection. However, the question arises as to what extent the outlined measures will improve the deteriorating environmental condition in recent decades and stop or possibly reverse the unfavourable environmental effects and processes. The decision-makers are in a quite complicated situation, considering that several other challenges of the 21. century – apart from the environment and climate protection – should also be solved, and if possible, fast and simultaneously. Stopping or possibly reversing the negative processes can only be done with an unprecedented degree of global collaboration.

## ACKNOWLEDGEMENT

This work was supported by the ÚNKP-20-4 New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Development and Innovation Fund.

## REFERENCES

- AP (2021): Biden's first act: Orders on pandemic, climate, immigration. New York: Associated Press. Available at: <https://apnews.com/article/joe-biden-executive-orders-b5b409da08e-42414b9a12e2c67ee2df6> Date of access: 06/05/2021
- Bai, A. (2004): A bioetanol-előállítás gazdasági kérdései. The economics of bioethanol production. ACTA AGRARIA DEBRECENIENSIS / AGRÁRTUDOMÁNYI KÖZLEMÉNYEK. 2004/14. 30-38. 9 p. [in Hungarian]
- Balogh, J. M. (2020): Completing the climate goals of the European Union – where are we now? Európai Unió klímacélok teljesítése – hogy tartunk most? Budapest: Klímapolitikai Intézet. Institute of Climate Policy. Available at: <https://klimapolitikaiintezet.hu/kutatas/europai-unios-klimacelok-hogy-tartunk-most> [in Hungarian] Date of access: 06/05/2021
- Bourguignon, D., Halleux, V. & Dobрева, A. (2019): Környezetvédelem. Environment protection. Brussels: Research service of the European Parliament. Available at: [https://what-europe-does-for-me.eu/data/pdf/focus/focus07\\_hu.pdf](https://what-europe-does-for-me.eu/data/pdf/focus/focus07_hu.pdf) [in Hungarian] Date of access: 15/04/2021
- EC (2019a): Fenntarthatóság: A Bizottság előterjeszti a fenntarthatóbb Európa 2030-ra történő megvalósításáról szóló vitaanyagot. Sustainability: The Committee submits the concept paper about making Europe more sustainable by 2030. Brussels: European Committee. Available at: [https://ec.europa.eu/commission/presscorner/detail/hu/IP\\_19\\_701](https://ec.europa.eu/commission/presscorner/detail/hu/IP_19_701) [in Hungarian] Date of access: 26/04/2021
- EC (2019b): ANNEX to the COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. The European Green Deal. Brussels: European Commission. Available at: [https://ec.europa.eu/info/sites/default/files/european-green-deal-communication-annex-roadmap\\_en.pdf](https://ec.europa.eu/info/sites/default/files/european-green-deal-communication-annex-roadmap_en.pdf) Date of access: 12/05/2021
- EC (2020a): Paris Agreement. Brussels: European Commission. Available at: [https://ec.europa.eu/clima/policies/international/negotiations/paris\\_en](https://ec.europa.eu/clima/policies/international/negotiations/paris_en) Date of access: 06/05/2021
- EC (2020b): 2020 climate & energy package. Brussels: European Commission. Available at: [https://ec.europa.eu/clima/policies/strategies/2020\\_en](https://ec.europa.eu/clima/policies/strategies/2020_en) Date of access: 06/05/2021



- EC (2020c): Supporting climate action through the EU budget. Brussels: European Commission. Available at: [https://ec.europa.eu/clima/policies/budget/mainstreaming\\_en](https://ec.europa.eu/clima/policies/budget/mainstreaming_en) Date of access: 12/05/2021
- EC (2020d): Európai horizont. European Horizon. Brussels: European Committee. Available at: [https://ec.europa.eu/info/sites/default/files/horizon\\_europe\\_hu\\_-\\_beruhazas\\_jovonk\\_alakitasaba.pdf](https://ec.europa.eu/info/sites/default/files/horizon_europe_hu_-_beruhazas_jovonk_alakitasaba.pdf) [in Hungarian] Date of access: 15/05/2021
- EC (2021a): Climate change: what the EU is doing. Brussels: European Committee. Available at: <https://www.consilium.europa.eu/en/policies/climate-change/>. Date of access: 12/06/2021
- EC (2021b): Speech by President von der Leyen at the Opening of the High-Level Conference 'Investing in climate action: The Make-or-Break Decade', in cooperation with the EIB. Brussels: European Commission. Available at: [https://ec.europa.eu/commission/presscorner/detail/en/SPEECH\\_21\\_1361](https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_21_1361) Date of access: 14/05/2021
- EC (2021c): 2050-ig szóló, hosszú távú stratégia. A long term strategy, until 2050. Brussels: European Committee. Available at: [https://ec.europa.eu/clima/policies/strategies/2050\\_hu](https://ec.europa.eu/clima/policies/strategies/2050_hu) [in Hungarian] Date of access: 12/05/2021
- Eduline (2021): Az EU környezetpolitikája. The environmental policy of the EU. Budapest: Eduline.hu. Available at: <http://eduline.hu/segedanyagtalalatok/letolt/3473> [in Hungarian] Date of access: 15/04/2021
- EU (2009): Az Európai Parlament és a Tanács 2009/28/EK irányelve ( 2009. április 23.) a megújuló energiaforrásból előállított energia támogatásáról, valamint a 2001/77/EK és a 2003/30/EK irányelv módosításáról és azt követő hatályon kívül helyezéséről. The 2020 climate and energy package. Directive 2009/28/EC of the European Parliament and the Council (23 April 2009) about supporting energy gained from renewable energy sources and about modifying the directives 2001/77/EC and 2003/30/EC. Brussels: European Union. Available at: <https://eur-lex.europa.eu/legal-content/hu/TXT/?uri=CELEX%3A32009L0028> [in Hungarian] Date of access: 10/04/2021
- EU (2017): A Tanács szerepe a nemzetközi megállapodásokban. The role of the Council in international agreements. Brussels: Council of the European Union. Available at: <https://www.consilium.europa.eu/hu/council-eu/international-agreements/> [in Hungarian] Date of access: 26/04/2021
- EU (2020a): European Green Agreement: Brussels: European Union. Available at: <https://www.consilium.europa.eu/hu/policies/green-deal>. Date of access: 12/05/2021
- EU (2020b): Horizont Európa: az innovációt és kutatást célzó uniós beruházások hatóerejének biztosítása. European Horizon: developing of European innovation and research. Brussels: European Union. Available at: <https://www.consilium.europa.eu/hu/policies/horizon-europe> [in Hungarian] Date of access: 15/05/2021
- EU (2021a): The Paris Treaty about climate change. Brussels: European Union. Available at: <https://www.consilium.europa.eu/hu/policies/climate-change/paris-agreement> Date of access: 10/04/2021
- EU (2021b): European Green Agreement. Brussels: European Union. Available at: <https://www.consilium.europa.eu/hu/policies/green-deal> Date of access: 28/04/2021
- EU (2021c): What measures does the EU lay down concerning climate change? Brussels: European Union. Available at: <https://www.consilium.europa.eu/hu/policies/climate-change> Date of access: 12/05/2021
- EU (2021d): Az EU 2021–2027-es időszakra vonatkozó hosszú távú költségvetése és a helyreállítási csomag. The long term budget of the EU for the 2021-2027 period and the rehabilitation package. Brussels: European Union. Available at: <https://www.consilium.europa.eu/hu/policies/the-eu-budget/long-term-eu-budget-2021-2027> [in Hungarian] Date of access: 14/05/2021
- EU (2021e): Infographics – the multi-year budget for the 2021-2027 period and the Next Generation EU. Brussels: European Union. Available at: <https://www.consilium.europa.eu/hu/infographics/mff2021-2027-geu-final> Date of access: 15/05/2021
- EURACTIV.com, Reuters (2021): EU carbon market will be extended to buildings and transport, von der Leyen confirms. Brussels, London: EURACTIV MEDIA NETWORK BV., Thomson Reuters. Available at: <https://www.euractiv.com/section/energy/news/eu-carbon-market-will-be-extended-to-buildings-and-transport-von-der-leyen-confirms> Date of access: 14/05/2021
- EUC (2021): Európai klímarendelet: a Tanács és a Parlament ideiglenes megállapodásra jutott. European climate law: the Council and the Parliament have reached a temporary agreement. Brussels: Council of the EU. Available at: <https://www.consilium.europa.eu/hu/press/press-releases/2021/05/05/european-climate-law-council-and-parliament-reach-provisional-agreement> [in Hungarian] Date of access: 12/05/2021
- Greendex (2020): 2020: így alakult az EU klímavédelmi mérlege. 2020: this is how the climate protection balance sheet of the EU has turned out. Budapest: DEX FUTURO Kft. Available at: <https://greendex.hu/2020-igy-alakult-az-eu-klimavedelmi-merlege> [in Hungarian] Date of access: 10/05/2021
- Horváth, Z. (2007): Környezetvédelmi politika. Environment protection policy. In: Z. Horváth, editor Handbook about the European Union. Eighth, modified release. Budapest: HVG-ORAC Lap-és Könyvkiadó Kft, pp. 438-449. [in Hungarian]



- Kurrer, C. (2020): Környezetpolitika: általános elvek és alapvető keretek. Environment policy: base principals and framework. Brussels: European Parliament. Available at: <https://www.europarl.europa.eu/factsheets/hu/sheet/71/kornyezetpolitika-altalanos-elvek-es-alapveto-keretek> [in Hungarian] Date of access: 26/04/2021
- MTI (2021a): Klímacsúcs – Von der Leyen: az EU kiterjeszti a szén-dioxid-kibocsátás kereskedelmi rendszerét az épületekre és a közlekedésre is. Climate conference – Von der Leyen: the EU expands the trading system of carbon-dioxide emission to buildings and traffic. Budapest: Magyar Távirati Iroda. Available at: <https://tudas.hu/klimacsucs-von-der-leyen-az-eu-kiterjeszti-a-szen-dioxid-kibocsatas-kereskedelmi-rendszeret-az-epuletekre-es-a-kozlekedesre-is> [in Hungarian] Date of access: 14/05/2021
- MTI (2021b): Újra egymásra talált az USA és az EU a klímavédelem és a biztonságpolitika terén, nagy a fogadkozás. The USA and the EU have found one another again in the areas of climate protection and security policy, big things are said. Budapest: Magyar Távirati Iroda, Portfolio.hu. Available at: <https://www.portfolio.hu/global/20210309/ujra-egymasra-talalt-az-usa-es-az-eu-a-klimavedelem-es-a-biztonsagpolitika-teren-nagy-a-fogadkozas-473384#> [in Hungarian] Date of access: 14/05/2021
- OH (2020): Az Európai Zöld Megállapodás. The European Green Agreement. Budapest: ORSZÁGGYŰLÉS HIVATALA - Közgyűjteményi és Közművelődési Igazgatóság - Képviselői Információs Szolgálat. Available at: [https://www.parlament.hu/documents/10181/4464848/Infojegyzet\\_2020\\_52\\_Europai\\_Zold\\_Megallapodas.pdf/b8ac0727-6099-7847-8b8f-e7288a692136?t=1591606810955](https://www.parlament.hu/documents/10181/4464848/Infojegyzet_2020_52_Europai_Zold_Megallapodas.pdf/b8ac0727-6099-7847-8b8f-e7288a692136?t=1591606810955) [in Hungarian] Date of access: 15/04/2021
- Reuters, Abnett, K. (2021): EU to apply CO2 emissions trading to buildings, transport, European Commission says. London: Reuters. Available at: <https://www.reuters.com/business/environment/eu-apply-co2-emissions-trading-buildings-transport-european-commission-says-2021-04-22> Date of access: 14/05/2021
- Širá, E., Kotulič, R., Kravčáková Vozárová, I. & Daňová, M. (2021): Sustainable Development in EU Countries in the Framework of the Europe 2020 Strategy. *Processes*, 9(3), p. (443):
- Taylor, K. (2020): Europe on track to smash its 2020 climate goal, EEA says. Brussels: EURACTIV MEDIA NETWORK BV. Available at: <https://www.euractiv.com/section/energy/news/europe-on-track-to-smash-its-2020-climate-goal-eea-says> Date of access: 10/05/2021
- Tsiropoulos, I., Nijs, W., Tarvydas, D., Ruiz, P. (2020): Insights from scenarios in line with the 2030 and 2050 ambitions of the European Green Deal. Brussels: Joint Research Centre. Available at: <https://www.buildup.eu/sites/default/files/content/toward1.pdf> Date of access: 10/05/2021
- UNFCCC (2021): The Paris Agreement. Bonn: United Nations Framework Convention on Climate Change. Available at: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> Date of access: 06/05/2021
- United Nations (2015): Transforming Our World: The 2030 Agenda For Sustainable Development. United Nations. A/RES/70/1. Available at: <https://sdgs.un.org/sites/default/files/publications/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>. Date of access: 05/07/2021
- Volcovici, V., Mason, J., Gardner, T. (2021): Biden's climate summit zeroes in on technology to help fight global warming. London: Thomson and Reuters. Available at: <https://www.reuters.com/business/environment/bidens-climate-summit-zeroes-technology-help-fight-global-warming-2021-04-23> Date of access: 14/05/2021

