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# European Climate Law – the "butterfly effect" approach

## Introduction

Until the resolution of the Stockholm Declaration, the scope of the principle of social justice was limited under international law to social relations within the contemporary generation at the time. Still, considering the theory published in 1971 by John Rawls:

- all people should have equal individual rights and freedoms,

- all people should have equal levels of opportunity,

 attempts to alleviate economic inequality should maximize the benefits of those who are least advantaged<sup>1</sup>.

A year later, the principle of sustainable development extrapolated Rawls' postulates to future generations<sup>2</sup> and over the subsequent decades has risen to the highest level in the hierarchy, both within the primary legislation of the European Union (hereafter the EU) and in the constitutional acts of the Member States. As of today, in light of Article 11 of the Treaty on the Functioning of the European Union (hereafter TFEU), this principle should serve as a guiding vector for the programming of sectoral policies<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> J. Rawls, *A theory of justice*, revised edition, Cambridge (MA) 1999, p. 266, DOI: 10.2307/ j.ctvkjb25m.

<sup>&</sup>lt;sup>2</sup> This principle was proclaimed within the framework of the Resolution of the Stockholm Conference of 14 June 1972 regarding the natural human environment (paragraph 1). The only official text is available in English at the website of the United Nations, https://legal.un.org/avl/ha/dunche/dunche.html (accessed: 10.04.2024).

 $<sup>^3</sup>$  At EU level, this is an overarching principle of primary law, as stated in Article 11 of the Treaty on the Functioning of the European Union of 13.12.2007 Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union Consolidated

By the end of the 20th century, the European Community<sup>4</sup> became a party to over thirty global or regional environmental protection agreements<sup>5</sup>. The ratification process of the United Nations Framework Convention on Climate Change (1992)<sup>6</sup> proceeded without significant disruptions, which cannot be said for the Kyoto Protocol (1998). The Convention does not fall into the category of framework treaties, with very general obligations, so it was only with the Kyoto Protocol that binding limits on greenhouse gas emissions were established. At the same time, the Protocol introduced three "free market" mechanisms: emissions trading, joint implementation, and the information exchange mechanism<sup>7</sup>. Despite the uncertain prospect of the Protocol entering into force, the EU particularly favoured the first of these mechanisms. The ratification process was structured in such a way that the fate of the Protocol depended

<sup>4</sup> In the view of potential semiotic concerns, the authors would like to emphasize that the European Community has been concluding international agreements and adopting secondary legislation until 1 December 2009, when the Treaty on the Functioning of the European Union (TFEU) came into force. Before that date the European Community had a distinct legal personality, constituting the first of the three pillars of the European Union.

<sup>5</sup> Five of these agreements concern the protection of the atmosphere on a global scale (climate change and ozone layer protection); the remaining ones include: sixteen agreements related to the protection of marine and ocean ecosystems, nine agreements concerning the protection of nature, terrestrial ecosystems, and inland waters, four agreements focused on preventing transboundary pollution and one agreement related to environmental impact assessments, access to information, and justice.

<sup>6</sup> United Nations Framework Convention on Climate Change (hereafter, UNFCCC), United Nations 1992, FCCC/INFORMAL/84 GE.05-62220 (E) 200705 conveng.pdf (unfccc.int) (accessed: 8.09.2024). Here "climate change" is defined as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is extends beyond natural variability of the climate observed over comparable periods of time. "Adverse effects of climate change" are defined as changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare" (see: Article 1 of UNCCC); for more see: J. Kuyper, H. Schroeder, B.-O. Linner, *The evolution of the UNFCCC*, "Annual Review of Environment and Resources" 2018, Vol. 43, pp. 343–68, DOI: 10.1146/annurev-environ-102017-030119.

 $^7\,\rm https://unfccc.int/process/the-kyoto-protocol/mechanisms/emissions-trading (accessed: <math display="inline">8.09.2024).$ 

version of the Treaty on European Union Consolidated version of the Treaty on the Functioning of the European Union Protocols Annexes to the Treaty on the Functioning of the European Union Declarations annexed to the Final Act of the Intergovernmental Conference which adopted the Treaty of Lisbon, signed on 13 December 2007 Tables of equivalences (OJ C 202, 7.6.2016, pp. 1–388 with amendments). In Polish legal system sustainable development is ranked as a constitutional principle (article 74(1) of the Constitution of the Republic of Poland of 2 April 1997, Journal of Laws No. 78, item 483). Its content has been developed most extensively in the definition from the Law of Environment Protection of 27 April 2001, Journal of Laws of 2024, item 54, hereinafter as LEP. In accordance with the definition from article 3 pt 50 of LEP, sustainable development, is meant as social and economical development, in which the process of integrating political, economical and social activity takes place, while maintaining natural balance and sustainability of basic natural processes, in order to guarantee that the basic needs of individual communities and citizens of both modern and future generations are met".

on the will of the Russian Federation, which completed the ratification process only seven years after the Protocol was adopted<sup>8</sup>. This, in effect, halved its period of applicability<sup>9</sup>.

The prospect of a legal gap caused by the planned adoption of the Paris Agreement in 2015 prompted the countries of the European Economic Area – concerned about the state of the climate – to voluntarily commit to extending their Kyoto Protocol obligations until 2020<sup>10</sup>. During that time the United States of America was one of the few global powers that consistently pursued a climate change prevention policy. The Los Angeles Times succinctly captured its dynamic and nonlinear nature:

1992: President George H.W. Bush signs the United Nations Framework Convention on Climate Change at the Earth Summit in Rio de Janeiro.

1997: President Clinton agrees to cut greenhouse gases 7% below 1990 levels under the Kyoto Protocol, the first international treaty with legally binding obligations to limit emissions. The U.S. signed the agreement but was not bound by it because it was never ratified by the U.S. Senate.

2001: President George W. Bush announced that the U.S. would not join the Kyoto Protocol, opposing it because it exempted developing nations from mandatory emissions cuts.

2015: President Obama pledges to cut U.S. emissions by 26% to 28% below 2005 levels by 2025 under the landmark Paris Agreement on climate change.

2017: President Trump announces the U.S. will quit the Paris Agreement (...). The withdrawal does not officially take effect until near the end of his term.

2021: President Biden moves to rejoin the Paris Agreement on his first day in office<sup>11</sup>.

<sup>&</sup>lt;sup>8</sup> See: A. Bernard, S. Paltsev, J. Reilly, M. Vielle, L. Viguier, *Russia's role in the Kyoto Protocol*, Joint Program Report Series Report 98, 20 pp., http://globalchange.mit.edu/publication/14396 (accessed: 8.09.2024).

<sup>&</sup>lt;sup>9</sup> See: Article 3(1) of the Kyoto Protocol, Kyoto Protocol to the United Nations Framework Convention on Climate Change – Declaration (OJ L 130, 15.5.2002, pp. 4–20) – the first commitment period of the Kyoto Protocol covered the years 2008–2012. See also: T. Schauenberg, *From Kyoto to Paris and beyond*, https://www.dw.com/en/kyoto-protocol-climate-treaty/a-52375473 (accessed: 8.09.2024): "The Kyoto Protocol, which created the first binding targets to limit greenhouse gas emissions, went into effect in February 2005. Some experts say it was a »game changer«, but others question its long-term effectiveness".

<sup>&</sup>lt;sup>10</sup> See: Durban Climate Change Conference – November/December 2011, UNFCCC: "The second commitment period of the Kyoto Protocol applies from 2013 to 2020 inclusive. For this second commitment period, the EU and the Member States communicated an independent quantified economy-wide emission reduction target of a 20 percent emission reduction by 2020 compared with 1990 levels (base year) (»the EU2020 target«)" – https://unfccc.int/conference/durban-climate-change-conference-november-2011 (accessed: 8.09.2024).

<sup>&</sup>lt;sup>11</sup> T. Barboza, *A brief timeline of U.S. climate pledges made, and discarded*, https://www.latimes. com/environment/story/2021-04-22/three-decades-of-us-climate-pledges-and-inaction (accessed: 8.09.2024).

This outline leads to the conclusion that the nature of international climate protection policy is characterised by the absence of the "principle of legal certainty". In international relations this concept manifests itself through such principles as the principle of good faith and *pacta sunt servanda*<sup>12</sup> (agreements must be kept). Both principles are classified as general principles of law, together with the principles of strictly international law, including the principle of state cooperation<sup>13</sup>.

# Materials and methods

In the preliminary analyses that form the basis of this article, the authors conducted a systematic review of the sources of EU climate policy law (see Table 1). Their scope was limited to legislative acts of the European Parliament and the Council adopted after the conclusion of the agreement concerning "Better Law-Making"<sup>14</sup>. The results allowed for developing a commentary on the dynamics and proportionality of the EU legislator's involvement concerning identified areas of regulation. In consequence, the reference point for the presented systematisation is the framework acts in force wherever the European environmental law applies. It should be noted that the comparative analysis was based on acts in force as of 1 September 2024 which met the criteria for framework regulation (the acts were qualified based on whether their content met the criteria rather than on their official titles). The comparative procedures involved analysing the sequence: 1) conceptual grid (definitions); 2) strategic aims of regulation; 3) implementation measures (following the "Causes-Nexus Principle").

Both above-mentioned analyses collectively formed the basis for answering the key question from the perspective of this article, namely: does the EU Climate Policy have a framework legal act that implements the principles of coherence and legal certainty in a manner proportional to the magnitude of the challenges of modern civilization?

<sup>&</sup>lt;sup>12</sup> For more on the principle of good faith and *pacta sunt servanda* in international law see: R. Kolb, *Principles as sources of international law (with special reference to good faith)*, "Netherlands International Law Review" 2006, Vol. 53, No. 1, pp. 1–36, DOI: 10.1017/S0165070X06000015; J. Zhifeng, *Pacta sunt servanda and empire: a critical examination of the evolution, invocation, and application of an international law axiom*, "Michigan Journal of international Law" 2022, Vol. 43, Issue 3, pp. 745–801, DOI: 10.36642/mjil.43.3.pacta.

 $<sup>^{13}</sup>$  UN General Assembly Resolution 2625 (XXV) of 24 October 1970, The Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States in accordance with the Charter of the United Nations: "Every State has the duty to fully comply in good faith with its international obligations and to live in peace with other States".

<sup>&</sup>lt;sup>14</sup> Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making, (OJ L 123, 12.5.2016, pp. 1–14).

It should be emphasized that the legislative technique as well as the substantive and systemic quality of the framework act in each area of law are crucial for its interpretation. Particularly in the case of highly developed systems, the role of the framework act cannot be overstated. Most subfields of environmental law qualify as such systems, which – from a holistic point of view – constitute the broadest area of administrative law regulation<sup>15</sup>.

That said, every development process has its adaptive and functional limits. Exceeding them results in a loss of control over the ongoing processes. In the case of climate change, losing control has ecological and social consequences. According to renowned scientific institutes, these consequences are likely to pose a threat to public safety systems<sup>16</sup>. As regards the development of a specific branch or field of law, such limit translates into the perception and effectiveness of the normative system in question.

The authors declare that this article is the result of their own research and development work, except for literary reference sources. The authors relied on the most valid reports from reputable international scientific bodies, evaluation documents from the European Commission (EC), legislative path analyses and their own professional experience<sup>17</sup>.

# Systemic and purposeful genesis of the EU climate policy

#### The scope and normative concept

This chapter will be dedicated to three general principles of law that complement each other in this context, namely the principle of coherence, the principle of legal certainty and the principle of proportionality. Table 1 presents an illustrative systematization of legislative acts, highlighting the challenge of integrating such diverse legal instruments.

Judging by the subtitle of the Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 on establishing the framework for achieving climate neutrality (European Climate Law), this piece of legislation

 $<sup>^{15}</sup>$  As regards the scope of the regulation, see footnote No. 5.

<sup>&</sup>lt;sup>16</sup> Conclusions of the Breakthrough National Centre for Climate Restoration report – S. David, I. Dunlop, *Existential climate-related security risk: a scenario approach*, Melbourne 2019, pp. 6–8, https://www.preventionweb.net/publication/existential-climate-related-security-risk-scenarioapproach (accessed: 8.09.2024).

<sup>&</sup>lt;sup>17</sup> Respectively for the individual authors: 1) experience from working as a Key Expert in World Bank projects related to water management and flood risk management, as well as a member of the Environmental Impact Assessment Commission under the Regional Director for Environmental Protection; 2) experience from serving as a judge of the Regional Administrative Court.

was intended as a framework act  $^{18}$ . Such presumption is supported by Article 1, which states:

This Regulation establishes a framework for the irreversible and gradual reduction of anthropogenic greenhouse gas emissions by sources and enhancement of removals by sinks regulated in Union law.

The concept of "climate neutrality" assumes the measurability of emissions from all sources – point, diffuse, covered and not covered by a monitoring system – and then balancing the developed estimates with geological  $CO_2$  storage processes and emissions absorption by natural ecosystems. Importantly, the processes from the second category occur in the mode of non-linear and chaotic feedback loops (known as ecological feedback). In legal terms, the feedback loops are referred to as indirect, cumulative and mutual interactions between environmental elements<sup>19</sup>.

Table 1

FRAMEWORK ACTS	Governance of the Energy Union and Climate Action (Regulation (EU) 2018/1999 of the European Parliament and of the Council of December 2018)
	European Climate Law (Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality)
EMISSION REDUCTIONS – fuels and products	Quality of petrol and diesel fuels (Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 (with amendments)
	$\rm CO_2$ emission performance standards for new passenger cars and for new light commercial vehicles (Regulation (EU) 2019/631 of the European Parliament and of the Council of 17 April 2019)
	Monitoring and reporting of data relating to $CO_2$ emissions from passenger cars and light commercial vehicles (Commission Implementing Regulation (EU) 2021/392 of 4 March 2021)
	Methodology to determine the share of biofuel biogas for transport, produced from biomass being processed with fossil fuels in a common process (Commission Delegated Regulation (EU) 2023/1640 of 5 June 2023)

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<sup>&</sup>lt;sup>18</sup> Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No. 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, pp. 1–17).

<sup>&</sup>lt;sup>19</sup> See point 3 and 4 of Annex IV to Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification), text with EEA relevance (OJ L 26, 28.1.2012, pp. 1–21).

EMISSION REDUCTIONS – fuels and products	Deployment of alternative fuels infrastructure (Regulation (EU) 2023/1804 of the European Parliament and of the Council of 13 September 2023)
	Fluorinated greenhouse gases (Regulation (EU) 2024/573 of the European Parliament and of the Council of 7 February 2024)
EMISSION REDUCTIONS – energetical conversion and efficiency	Scheme for greenhouse gas emission allowance trading within the Community (Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003)
	Energy efficiency (Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012)
	Framework for energy labelling (Regulation (EU) 2017 /1369 of the European Parliament and of the Council of 4 July 2017)
	Binding annual greenhouse gas emission reductions (Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018)
	Promotion of the use of energy from renewable sources (Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018)
	Monitoring and reporting of greenhouse gas emissions (Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018)
	Corporate sustainability reporting (Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022)
	Content and format of climate-neutrality plans needed for granting free allocation of emission allowances (Commission Implementing Regulation (EU) 2023/2441 of 31 October 2023)
	Energy performance Of buildings (recast) (Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024)
EMISSION REMOVAL BY SINKS	Geological storage of carbon dioxide (Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009)
	Inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework (Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018)
	Union certification framework for carbon removals (Proposal for a Regulation of the European Parliament and of the Council establishing COM (2022) 672 final, 30 November 2022)
	Monitoring framework for European forests (Proposal for a Regulation of the European Parliament and of the Council COM/2023/72S final, 22 November 2023)
	Soil Monitoring and Resilience (Proposal for a Directive of the European Parliament and of the Council [Soil Monitoring Law], Brussels, May 2024, 17.5.2024, OR.en)

Source: authors own study.

It should be noted that practically every legal act listed in the Table 1 is characterized by different methods of evaluating and reporting their effectiveness. The quotient of the difference in calculation errors assumed in advance by the legislator juxtaposed with the milestone dates for climate goals leads to a major loss of credibility in the scope of *ratio legis*.

Regardless of how well-justified individual instruments may be, they must be based on the best available scientific knowledge and the assumption that the implemented actions are proportional to the intended goals. Considering publicly available scientific knowledge, macroclimate change modelling can only be performed as a trend analysis and not a basis for quantitative regulation of emissions on a continental scale<sup>20</sup>.

At this point, it should be clearly emphasized that the EU legislator assumes that he is capable of regulating phenomena that meet the criteria of "force majeure". Conducting estimates of emissions absorption at the national level based on extremely simplified conversion formulas constitutes a depreciation of the "principle of objective truth"<sup>21</sup>. Such processes will never be measurable in a way that could serve as input data for such a significant regulatory system as the EU ETS<sup>22</sup> and merely two circumstances suffice to illustrate this point.

The first one concerns the presumptions established in the implementing regulation on monitoring and reporting for the EU ETS system<sup>23</sup>. Monitoring covers emissions from stationary installations as well as aviation and maritime transport. According to Regulation 2018/842 on binding annual greenhouse

<sup>&</sup>lt;sup>20</sup> N. Abram et al., Yes, a few climate models give unexpected predictions, but the technology remains a powerful tool, https://theconversation.com/yes-a-few-climate-models-give-unexpected-predictions-but-the-technology-remains-a-powerful-tool-165611 (accessed: 8.09.2024): "Climate models comprise millions of lines of computer code representing the physics and chemistry of the processes that make up our climate system. The models run on powerful supercomputers and have simulated and predicted global warming with remarkable accuracy". Earth System Models – complex computer models which describe Earth processes and their interactions – are critical for predicting climate change. By simulating the response of our land, oceans and atmosphere to anthropogenic greenhouse gas emissions these models are the foundation for predictions of possible extreme weather and climate event scenarios, including those endorsed by the UN Intergovernmental Panel on Climate Change (IPCC).

<sup>&</sup>lt;sup>21</sup> The principle of objective truth is a key principle in administrative proceedings. In Polish law, it is expressed in Article 7 of the Code of Administrative Procedure (Journal of Laws 1960, No. 30, item 168 with amendments).

<sup>&</sup>lt;sup>22</sup> EU ETS is an abbreviation for Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, text with EEA relevance (OJ L 275, 25.10.2003, pp. 32–46 with amendments).

 $<sup>^{23}</sup>$  Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012, text with EEA relevance (OJ L 334, 31.12.2018, pp. 1–93 with amendments).

gas emission reductions<sup>24</sup>, the allocation system tends to decrease. From an axiological perspective, the authors believe that the regulation on monitoring and reporting is based on the principle of uncertainty, for which the IPCC has developed the "Monte Carlo approach"<sup>25</sup>. Eight out of sixty-three definitions pertain to managing the risk of calculation errors. Moreover, emission allowances for the subsequent accounting year are granted subject to compliance with the emission permit in the expiring period<sup>26</sup>. However, the emission permit issued under the EU ETS Directive does not meet the criteria of an emission permit in the doctrinal sense. It is merely a notification in which the operator declares the ability to monitor emissions<sup>27</sup> as reliably as his methodological, technical, and personnel capabilities allow. According to the latest Communication from the European Commission, this point is one of the main challenges in improving the monitoring system<sup>28</sup>.

The second circumstance relates to the inability to model generally and abstractly the amount of emissions absorbed by natural ecosystems. Such information can be found on the front page of the LULUCF domain of the European Commission. According to this content, which is a guiding rule, natural sinks may either absorb or emit  $\rm CO_2$ , depending on ecological conditions<sup>29</sup>.

As indicated at the beginning of this chapter, historical analysis of legislative activity also allows for further objectification of the *ratio legis* assessment in the long term. The results of such analysis are quite significant from the perspective of the principle of solidarity in the actions of the Union and its Member States, whether in the context of natural disasters<sup>30</sup> or in

 $<sup>^{24}</sup>$  Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013, text with EEA relevance (OJ L 156, 19.6.2018, pp. 26–42 with amendments).

<sup>&</sup>lt;sup>25</sup> 2006 IPCC Guidelines for National Greenhouse Gas Inventories, prepared by the National Greenhouse Gas Inventories Programme, eds. H.S. Eggleston, L. Buendia, K. Miwa, T. Ngara, K. Tanabe, Vol. 1: General Guidance and Reporting, Japan.

<sup>&</sup>lt;sup>26</sup> Directive 2003/87/EC, Article 30(b).

 $<sup>^{27}</sup>$  "Greenhouse gas emissions permit" means the permit issued in accordance with Articles 5, 6 and 30(b) of Directive 2003/87/EC (EU ETS).

<sup>&</sup>lt;sup>28</sup> Report from the Commission to the European Parliament and the Council on the operation of the European Climate Law and of the Effort Sharing Regulation, and on the Emissions Trading System Directive in the context of the global stocktake, Brussels, 15.5.2024 (COM(2024) 196 final).

<sup>&</sup>lt;sup>29</sup> Land use sector – European Commission, https://europa.eu (accessed: 8.09.2024).

<sup>&</sup>lt;sup>30</sup> In the light of Article 3(1) of the Act of 18 April 2002 on the state of natural disaster (Journal of Laws of 2014, item 333, as amended), whenever the Act refers to a natural disaster it is understood as, *inter alia*, a natural catastrophe, i.e. an event associated with the action of natural forces (in particular lightning, seismic shocks, strong winds, intense precipitation, prolonged occurrence of extreme temperatures, landslides, fires, droughts, floods, ice phenomena on rivers and the sea as well as lakes and reservoirs, mass occurrence of pests, plant or animal diseases or infectious human diseases or the action of another element).

general, as a principle which constitutes a fundamental value of the European Union<sup>31</sup>. According to the principles of subsidiarity and shared competence, in areas that do not fall within the exclusive competence of the Union, it applies only if and to the extent that the objectives of a proposed action cannot be sufficiently achieved by the Member States<sup>32</sup>.

Assessing the fulfilment of the above conditions in the case of the normative volume of the EU climate policy, assuming the absence of a framework act justifying the Union's actions in accordance with the Treaty provisions, is simply impossible. However, historical analysis allows for the formulation of a different question, namely: has the European Union, using its shared competence, demonstrated the justification for its authority?

#### Shared competencies and solidarity principle

Until the ratification of the Paris Agreement, the European Commission did not exhibit exceptional legislative initiative regarding the effective implementation of the general provisions of the UNFCCC. The Convention entered into force in the EU legal order on March 21<sup>st</sup>, 1994, by Council Decision 94/69/EC of December 15<sup>th</sup>, 1993. Fifteen years later, the EU adopted the first two instruments implementing the emissions balancing system and falling under the conceptual scope of 'sinks' as defined in Article 1, point 8 of the UNFCCC.

This refers to Directive 2009/31/EC on the geological storage of carbon dioxide. The second instrument was adopted 14 years after the entry into force of the Kyoto Protocol, which is the LULUCF Regulation. Thirteen years after the entry into force of the directive on the geological storage of  $CO_2$ , the European Commission concluded that the carbon capture and storage system was ineffective, leading to the development of a proposal for a Regulation establishing a Union certification framework for carbon removals<sup>33</sup>.

Considering the principle of solidarity and the provisional use of shared competencies, the question arises as to which principles guide EU institutions when they refuse to support "the 10 states" (i.e. those which joined the EU in

<sup>&</sup>lt;sup>31</sup> See Article 222(1) TFEU and Article 2 TEU, Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union Consolidated version of the Treaty on European Union Consolidated version of the Treaty on the Functioning of the European Union Protocols Annexes to the Treaty on the Functioning of the European Union Declarations annexed to the Final Act of the Intergovernmental Conference which adopted the Treaty of Lisbon, signed on 13 December 2007 Tables of equivalences (OJ C 202, 7.6.2016, pp. 1–388 with amendments).

<sup>&</sup>lt;sup>32</sup> See Article 5(3) TUE.

<sup>&</sup>lt;sup>33</sup> Proposal for a Regulation of the European Parliament and of the Council establishing a Union certification framework for carbon removals, COM/2022/672 final.

2004), which have been historically relying on coal-based energy. The authors refer to the limited opportunities to benefit from outstanding exemptions and the strict obligation to comply with the European Parliament and Council's decisions regarding the establishment and functioning of the market stability reserve<sup>34</sup>. Importantly, established case law in this scope is reinforced in case C-445/23, in which the Vice-President of the Court of Justice refused to suspend the enforceability of the Decision (EU) 2023/852 – the market stability reserve for the Union greenhouse gas emission trading system<sup>35</sup>. The Court held that the effects of the contested decision do not meet the criteria of "social unrest that may pose a threat to public order"<sup>36</sup>.

As regards deadlines set for achieving strategic goals, EU institutions exhibit extreme discrepancies when it comes to assessing the feasibility of evaluating implemented actions. In the report on the evaluation of the Environmental Noise Directive, conducted under the REFIT program, the European Commission states that: "the benefits of most measures to address noise can only be seen in the longer term, as noise reduction measures take long to be implemented (e.g. over a 20-year period)"<sup>37</sup>. The authors would like to emphasize that the quote above refers to the evaluation of actions undertaken within urban agglomerations whereas the distribution of noise pollution depends on the location and the nature of the emission sources. Moreover, noise is a physical phenomenon that diminishes when the source is eliminated, with its value expressed in decibels decreasing as one moves away from the source or as it is reflected by physical barriers on its course (e.g. first-line buildings). It is difficult to imagine what intentions lead the EU institutions to assume the measurability of goals over a similar time frame, when the only difference is that climate systems involve multi-directional feedback mechanisms at the topo-, meso-, and macro-climate levels.

<sup>&</sup>lt;sup>34</sup> Judgment of the Court (Second Chamber) of 21 June 2018, case C-5/16 *Republic of Poland* v. *European Parliament and Council of the European Union*, ECLI:EU:C:2018:483.

<sup>&</sup>lt;sup>35</sup> Order of the Vice-President of the Court of 18 September 2023, case C-445/23 R *Republic* of Poland v. European Parliament and Council of the European Union, ECLI:EU:C:2023:703.

<sup>&</sup>lt;sup>36</sup> Ibidem, Paragraph 15. The complainant argues that "the implementation of the contested decision would result in the estimated loss of 45,500 jobs in the mining sector alone and 50,000 jobs in related sectors, particularly due to the bankruptcy of many enterprises. This would lead to the impoverishment of all Polish households, significantly increasing the portion of their income that will have to be allocated to purchasing energy".

<sup>&</sup>lt;sup>37</sup> Report from the Commission to the European Parliament and the Council on the Implementation of the Environmental Noise Directive in accordance with Article 11 of Directive 2002/49/EC, Brussels, 30.3.2017 (COM(2017) 151 final), pp. 7–8.

### Comparative analysis of framework acts

Just as the European Commission is the guardian of the Treaties, environmental law serves as the guardian of the principle of sustainable development. Currently, EU environmental law regulates almost the entire range of instruments for managing and protecting environmental resources. In individual regulatory areas, the normative system comprises of between several to around 20 legislative regulations, implementing regulations, delegated acts and directives. In the first decade of the 21st century, the European Union rationally approached the legislative process. During this period, four framework acts were adopted, which continue to fulfil their role in ensuring coherence, certainty, and effectiveness of law (see Table 2). However, it should not be assumed that framework acts integrate the entire regulatory field within a given area, as this is often impossible due to diverse specificity of subfields. Nevertheless, in each case, they serve as the central axis of regulation.

One representative example is Directive 2008/98/EC of the European Parliament and the Council on waste<sup>38</sup>. This Directive performs integrating function in a vertical arrangement, and given the specific nature of the regulatory area, such approach can be considered justified. Each group of waste is subject to a somewhat different management regime, the assessment of which does not take place at the level of the entire system<sup>39</sup>. Therefore, the

 $<sup>^{38}</sup>$  Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (text with EEA relevance) (OJ L 312, 22.11.2008, pp. 3–30 with amendments).

<sup>&</sup>lt;sup>39</sup> The waste management sector additionally encompasses the following acts: European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (OJ L 365, 31.12.1994, pp. 10-23 with amendments); OJ L 243, 24.9.1996, pp. 31-35; Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, pp. 1–19 with amendments); Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles - Commission Statements (OJ L 269, 21.10.2000 pp. 34-43 with amendments); Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC - Statement by the European Parliament, the Council and the Commission (OJ L 102, 11.4.2006, pp. 15-34 with amendments); Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast), text with EEA relevance (OJ L 174, 1.7.2011, pp. 88-110 with amendments); Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (recast), text with EEA relevance (OJ L 197, 24.7.2012, pp. 38-71 with amendments); Regulation (EU) No. 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No. 1013/2006 and Directive 2009/16/EC, text with EEA relevance (OJ L 330, 10.12.2013, pp. 1-20 with amendments); Regulation (EU) 2023/1542 of the European Parliament and of the Council of 12 July 2023 concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC, text with EEA relevance (OJ L 191, 28.7.2023, pp. 1–117 with amendments); Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024 on shipments of waste, amending Regulations (EU) No 1257/2013 and (EU) 2020/1056 and repealing Regulation (EC) No. 1013/2006, text with EEA relevance (OJ L, 2024/1157, 30.4.2024).

Directive can serve as an excellent point of reference for assessing the functionality of the European Climate Law Regulation. In both cases, there are no consistent horizontal relationships between the individual acts that holistically impact the efficiency of the regulatory package. The Waste Directive, however, as far as possible, characterizes the management system, excluding special provisions. These exclusionary provisions are important from the perspective of systemic interpretation and the principle of legal certainty.

The Directive establishes the waste hierarchy, which should be understood as the order of priorities in waste prevention and management laws and policies<sup>40</sup> and which goes as follows: a) prevention; b) preparing for reuse; c) recycling; d) other recovery methods, such as energy recovery; e) disposal<sup>41</sup>.

What is important, a framework act should regulate the question of integration between interrelated acts within the given normative field, especially when the efficiency of all the instruments affects the feasibility of achieving the strategic objective<sup>42</sup>. This is known as internal integration. External integration, on the other hand, involves interactions between acts that exist in a symbiotic relationship (supporting efficiency) and those requiring the establishment of conflict rules. A special form of external integration is the process of incorporating obligations that stem from an international agreement entered into by the EU into its legal order.

Firstly, it is necessary to distinguish legal acts that comprehensively implement a specific international agreement, which constitute an entirely or partially separate normative system despite overlapping with areas regulated by framework acts<sup>43</sup>.

<sup>&</sup>lt;sup>40</sup> See Article 4 Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives ("waste hierarchy").

<sup>&</sup>lt;sup>41</sup> European Commission: Directorate-General for Environment, Assessment of plans and projects significantly affecting Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC – November 2001, Publications Office, 2002. This hierarchy aligns with the general principle of minimization adopted within environmental impact assessment procedures, which prescribes the following sequence of actions: avoid impacts at source – reduce impacts at source – abate impacts on site – abate impacts at receptor (p. 14).

<sup>&</sup>lt;sup>42</sup> See, e.g.: Article 4(2) of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy: "Where more than one of the objectives under paragraph 1 relates to a given body of water, the most stringent shall apply".

<sup>&</sup>lt;sup>43</sup> Several agreements have been implemented this way, including: Basel Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel 1989) (OJ L 39, 16.2.1993, pp. 3–22), 93/98/EEC: Council Decision of 1 February 1993 on the conclusion, on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention) (OJ L 39, 16.2.1993, pp. 1–2) implemented by Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024 on shipments of waste, amending Regulations (EU) No. 1257/2013 and (EU) 2020/1056 and repealing Regulation (EC) No. 1013/2006, text with EEA relevance (OJ L, 2024/1157, 30.4.2024); Vienna Convention for the protection of the ozone layer (Vienna 1985) (OJ L 297, 31.10.1988, pp. 10–20) implemented by Regulation (EC) No. 1005/2009 of the European Parliament and of the Council

In general, as regards the implementation of international agreements, at least three different approaches should be considered:

1) One international agreement is implemented through a primary act in the form of a regulation by the European Parliament and the Council, and subsequently through implementing acts in the form of Commission regulations<sup>44</sup>.

2) Several international agreements are implemented through a proportional number of legislative  $acts^{45}$ .

3) A specific instrument of an international agreement is implemented through a primary act in the form of a directive – the best example is the emissions trading scheme established under the Kyoto Protocol.

Finally, a central act, whether at the level of a particular field or subfield of law, should serve as introduction and guide to the entire system. It should define the scope of individual implementing regulations, establish the main concepts, create the foundations for key legal instruments, outline the principles for integrating these instruments within the system and justify how these integrated instruments will achieve the goals set out for the given field or subfield.

<sup>44</sup> Ibidem.

of 16 September 2009 on substances that deplete the ozone layer (recast), text with EEA relevance (OJ L 286, 31.10.2009, pp. 1–30 with amendments); Montreal Protocol on substances that deplete the ozone layer (Montreal 2000) (OJ L 297, 31.10.1988, pp. 21–28) implemented by Regulation (EC) No. 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed, text with EEA relevance (OJ L 268, 18.10.2003 with amendments); Protocol on Pollutant Release and Transfer Registers (Kyiv 2003) (OJ L 32, 4.2.2006, pp. 56–79) implemented by Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC, text with EEA relevance (OJ L 33, 4.2.2006, pp. 1–17 with amendments); Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), implemented by Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein (OJ L 61, 3.3.1997, pp. 1–69 with amendments).

<sup>&</sup>lt;sup>45</sup> The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, signed in Ramsar on 2 February 1971; the Convention on the Conservation of Migratory Species of Wild Animals, signed in Bonn on 23 June 1979; the Bern Convention on the Conversation of European Wildlife and Natural Habitats, signed in Bern on 19 September 1979 and implemented by Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, pp. 7–50 with amendments); Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, pp. 1–73 with amendments); Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, pp. 7–25 with amendments).

Table 2

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AREA OF REGULATION	DEFINITION OF TERMS DETERMINING STRATEGIC GOALS	DEFINITION OF TERMS DETERMINING IMPLEMENTATION SYSTEM			
WATER FRAMEWORK DIRECTIVE	Article 1: purpose <sup>1</sup> Article 2, points 17–18: qualitative definitions of good status or potential; quantitative targets defined in Annex 5 Article 2, points 34–35, 40–41: environmental objectives, quality standard; emission limit values	Article 2, points 1–15: definition on all types of water bodies and spatial management units Article 3: coordination of administrative arrangements Article 11: programme of measures Article 13: river basin management plans			
MARINE POLICY FRAMEWORK DIRECTIVE	Article 1: subject matter <sup>2</sup> Article 2, points 7, 8: qualitative descriptors, environmental target Article 3, points 4–5, 8: qualitative definitions of good status	Article 2, points 7, 8: marine region Article 4: marine regions or subregion; marine strategies Article 10: environmental targets Article 13: programmes of measures			
NOISE MANAGEMENT FRAMEWORK DIRECTIVE	Article 1: objectives <sup>3</sup> Article 3, point (a): environmental noise Article 3, point (b): harmful effects Article 3, point (j): dose-effect Article 3, point (s): limit value	Article 3, point (k): agglomeration Article 3, point (q): noise mapping Article 3, point (u): acoustic planning Article 4: implementation and responsibilities Article 8: action plans			
WASTE MANAGEMENT FRAMEWORK DIRECTIVE	Article 1: subject matter and scope <sup>4</sup> Article 4: waste hierarchy Article 16: principles of self-sufficiency and proximity Article 27: delegation for minimum standards for treatment activities	Article 3, points 1–4a: waste categories Article 11a: calculation of the attainment of the target Articles 27–28: waste management plans			

Conceptual grid - strategic goals and system of implementation

Source: developed by the authors.

 $^1$  The purpose of this Directive is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater.

<sup>2</sup> The purpose of this Directive is to establish a framework within which Member States shall take the necessary measures to achieve or maintain good environmental status.

 $^3$  The purpose of this Directive is to define a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects.

 $^4$  The purpose of this Directive is to lay down measures to protect the environment and human health by preventing or reducing the generation of waste, the adverse impacts of the generation and management of waste.

To conclude, the authors will refer to what they consider a highly relevant quote from the Polish doctrine of environmental law: "The integrity of regulation safeguards against the disorganization and dysfunctionality of the legal system, ensures the transparency and clarity of regulation, and eliminates legal gaps and contradictions"<sup>46</sup>.

#### **Research outcome**

During the conducted study, a systemic interpretation was applied to Article 1 of Regulation 2021/1119 (European Climate Law), which establishes the framework and defines the concept of "climate neutrality". As a result, it was determined that, under Article 1 of the Regulation, achieving "climate neutrality" presupposes the possibility of quantitatively balancing emissions from all categories of sources – point, diffuse, and products – which are ether covered by monitoring and reporting mechanisms that vary in form and quality or not subject to any reporting requirements at all. The total sum of emissions is ultimately to be offset by the amount of greenhouse gases absorbed by natural ecosystems, as well as the capture and underground storage of  $CO_2$  (all of which fall into the category of the so-called "sinks").

Considering the analysed framework acts and their role as "system guides" (integrating aspects of terminology, establishing the interplay of management instruments, determining their hierarchy and conflict rules), it has been recognized that Regulation 2021/1119 (European Climate Law), largely mirrors the provisions of the Paris Agreement and, in some places, is even more restrictive. At this point, it is worth emphasizing that a much more effective act in this context is Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the governance of the energy union and climate action<sup>47</sup>. Regulation (EU) 2018/1999 is significantly more detailed and systematic in nature, and it is based on a more structured, systemic approach. However, as with most EU Climate Policy acts, these provisions remain superficial. The lack of coordination and rationality in revisions of the key pillars of EU Climate Policy, such as the LULUCF system, geological CO<sub>2</sub> storage and the development of renewable energy only demonstrates that none

<sup>&</sup>lt;sup>46</sup> J. Sommer, *Efektywność prawa ochrony środowiska i jej uwarunkowania – problemy udatności i struktury*, Wrocław 2005, pp. 81 et seq.

<sup>&</sup>lt;sup>47</sup> Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No. 663/2009 and (EC) No. 715/2009 of the European Parliament and of the Council, Directives 94/22/ EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No. 525/2013 of the European Parliament and of the Council, text with EEA relevance (OJ L 328, 21.12.2018, pp. 1–77 with amendments).

of these acts possesses sufficient structure and impact. Furthermore, the relationship between the analysed regulations has not been defined, with the European Climate Law being subject to revision in the context of the findings of the first Paris Agreement summit (global stocktake). In the end, none of the regulations addresses the shortcomings identified in this article, the most significant of which relate to the following systemic assumptions:

1) The establishment of an emission standard (climate neutrality) at the continental level, which is to be achieved gradually over a period of 1 to 3 decades, contributing to the achievement of the global goal, after which identifying cause-and-effect relationships will objectively be impossible.

2) The designated goals are to be implemented using instruments originally outlined in the UNFCCC, which, however, were transposed into the EU legal framework either about a decade (geological  $CO_2$  storage) or about two decades (LULUCF system) after the adoption of the Kyoto Protocol, and which in 2021 were deemed ineffective by the European Commission and IPCC, leading either to their amendment or the development of legislative initiatives aimed at improvement.

3) The evaluation process for the goals mentioned in point 1 is fictitious, especially since – according to IPCC reports and glossaries – they are not quantitatively measurable due to non-linear and chaotic feedback processes in climate systems, particularly when boundary climate trend analyses are measured over several decades.

4) The authors are by no means Eurosceptics; however, they recognize a deeply concerning trend towards the instrumental use of law by the EU legislator, undermining the foundations of the legal system in terms of legal certainty, coherence, proportionality, justice, and rational action.

Under the provisions of Article 4(3) of Regulation 2021/1119/EU (European Climate Law), the Commission was obliged to present an appropriate legislative proposal to amend the Regulation within six months of the first global stocktake under Article 14 of the Paris Agreement. The Commission presented the first report to the European Parliament and the Council on 15 May  $2024^{48}$ , based on which a relevant legislative proposal should be developed. Based on the findings of this study, the authors suggest considering the conditions for recognizing Regulation 2021/1119 as a framework act in the context of EU climate policy, considering specific criteria proposed as a result of this research (see Table 3).

 $<sup>^{48}</sup>$  Report from the Commission... (COM(2024) 196 final).

#### Table 3

Conditions for compliance with the principle of "legal certainty" Regulation European Climate Law

CONDITION	DESCRIPTION
CLARIFICATION OF STRATEGIC OBJECTIVE	Clarification of the strategic objective in qualitative terms regarding "climate balance," divided by regional accounting units in accordance with Article UNFCCC, thereby relieving the binding EU institutions and member states from the obligation to conduct quantitative accounting operations that will not yield credible results in any case.
ADJUSTMENT OF IMPLEMENTATION MEANS	Adjustment of the implementation means to the strategic objective, among which there exists a reasonable and provable causal relationship, considering in this case the hydrological, meteorological, and ecological conditions of this relationship as well as the time horizon after which the anticipated effects may be observable.
ESTABLISHMENT OF A GRID OF STRATEGIC DEFINITIONS	Establishment of a grid of strategic definitions common to the entire system, ensuring a uniform interpretation of the strategic objective, the scope of means implementing the specific objective, and allowing for the identification of causal relationships between strategic objectives and executive measures, including the proportion of implementation means in achieving strategic objectives; respecting the principle of not using the definition of "ibidem per ibidem".
APPLICATION OF EXISTING TERMINOLOGY	Application of existing terminology in a meaning consistent with its common or specialized understanding, depending on the scientific discipline that determines the correct meaning of a given term, and in a form consistent with international legal acts that have established a clear conceptual framework in this regard.
CLARITY OF IMPLEMENTATION MEANS	Application of existing terminology in a meaning consistent with its common or specialized understanding, depending on the scientific discipline that determines the correct meaning of a given term, and in a form consistent with international legal acts that have established a clear conceptual framework in this regard.
ESTABLISHMENT OF A SO-CALLED "ESCAPE CLAUSE"	Establishment of a so-called "escape clause" in case: despite making every necessary effort by member states, the realization of objectives within the given time perspective proves objectively impossible, especially when the current factual situation regarding the degree of achieving objectives has a directly contrary tendency to what was assumed, and also when the realization of objectives was impossible in whole or in part due to the occurrence of force majeure in this case manifested by ongoing changes in climatic conditions.

Source: authors own study.

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#### Summary

# European Climate Law - the "butterfly effect" approach

**Keywords:** environment protection law, general rules of law, European Climate Law, framework acts, solidarity principle, quality of law.

Changes in climate systems currently occur following the principles of deterministic chaos. These principles, also known as the "butterfly effect", are based on the sensitivity to initial conditions in dynamic and nonlinear ecological and atmospheric phenomena. A few months before the ratification of the Paris Agreement by the EU, its institutions adopted the Agreement on Better Law-Making. This agreement aims to evaluate existing regulations in the context of the core principles of a democratic rule of law. The accumulated and diverse legislative acts introduced under the EU's climate policy since April 2016 have triggered a "butterfly effect" – this time, however, within the EU's legal framework. This article argues that the EU legislator has not attempted to achieve legislative transparency, a state certainly not achieved by the seemingly framework act, the European Climate Law. As a result, the normative system of the EU's climate policy exemplifies an extremely disintegrated system, lacking a coherent terminological framework, climate quality standards, or doctrinally understood emissions permit institutions. The authors aim to refer current shape of legal regulation concerned with climate policy concerning systematic assumptions, that this regulation should meet. Within this aim, authors consider axiological aspects of climate policy, including the principle of coherence, the principle of legal certainty and the principle of proportionality. Scientific methods applied in the article are dogmatic and comparative analysis.

#### Streszczenie

#### Europejskie prawo klimatyczne – "efekt motyla"

**Słowa kluczowe:** prawo ochrony środowiska, ogólne zasady prawa, europejskie prawo klimatu, akty ramowe, zasada solidarności, jakość prawa.

Zmiany w systemach klimatycznych zachodzą obecnie zgodnie z zasadami chaosu deterministycznego. Zasady te, znane również jako "efekt motyla", opierają się na wrażliwości na warunki początkowe w dynamicznych oraz nieliniowych zjawiskach ekologicznych i atmosferycznych. Kilka miesiecy przed ratyfikacja przez UE Porozumienia paryskiego jej instytucje zawarły porozumienie w sprawie lepszego stosowania prawa. Jego celem jest ocena istniejących regulacji w kontekście podstawowych zasad demokratycznego państwa prawa. Zgromadzone i różnorodne akty prawne wprowadzone w ramach polityki klimatycznej UE od kwietnia 2016 r. wywołały tzw. efekt motyla - tym razem jednak w ramach unijnego porządku prawnego. W artykule argumentuje się, że unijny ustawodawca nie podjął próby osiągnięcia przejrzystości legislacyjnej, czego na pewno nie zapewnił rzekomo ramowy akt, jakim jest europejskie prawo klimatyczne. W rezultacie system normatywny polityki klimatycznej UE stanowi przykład skrajnie zdezintegrowanego systemu, pozbawionego spójnych ram terminologicznych, standardów jakości klimatu czy instytucji pozwoleń emisyjnych rozumianych doktrynalnie. Celem niniejszej publikacji jest przedstawienie deficytów systemu prawa klimatycznego, który zmierza do daleko idacej dezintegracji aksjologicznej i systemowej, kosztem ukierunkowania wyłącznie na realizację celów klimatycznych. Autorzy przedstawili obecny kształt przepisów prawnych regulujących istotny obszar polityki klimatycznej z uwzględnieniem założeń systemu, który ta regulacja winna tworzyć. W ramach tej analizy uwzględnione zostaną także aksjologiczne aspekty polityki klimatycznej, w tym zorientowane na realizację zasad spójności, proporcjonalności i pewności prawa. W pracy zastosowano następujące metody badawcze: analizę dogmatyczna i analizę komparatystyczną.