

SECTION: JURISPRUDENCE

DOI 10.70286/ISU-17.09.2025.005

SOME ISSUES WITH THE REGULATION OF ANTHROPOGENIC METHANE EMISSIONS IN UKRAINE'S AGRICULTURAL SECTOR

Radchenko Daniil

Postgraduate student

ORCID: 0009-0002-4459-0009

V. Mamutov Institute of Economic and Legal Research
of the National Academy of Sciences of Ukraine
Kyiv, Ukraine

Climate change today poses a major challenge for all humanity. These changes have already become especially urgent in various areas of human activity. Over the past 30 years alone, the average air temperature in Ukraine has increased by 1.2°C [1]. The number of extreme weather events that directly affect our lives is rising. The future of new generations is at risk, facing many challenges such as floods, droughts, hurricanes, and extreme temperature fluctuations. It is well known that the main cause of global climate change is the greenhouse effect, primarily resulting from the burning of petroleum products, coal, and natural gas, the creation of large landfills, and irrational agricultural practices, all of which contribute to greenhouse gas emissions.

It should be noted that current national legislation does not adequately regulate the various activities affecting climate change or the measures aimed at mitigating its effects. In particular, there is little focus on the impact of anthropogenic emissions of specific gases on the environment. Specifically, at the legislative level, there is almost no attention given to anthropogenic emissions of gases such as methane (CH₄) and nitrous oxide (N₂O), unlike carbon dioxide (CO₂), which is mainly addressed in the regulation of various activities. However, methane accumulates heat and radiation much more effectively, resulting in a greenhouse effect that is 28-30 times stronger than that of carbon dioxide, which serves as the basis for such calculations. At the same time, the share of methane in the CO₂ equivalent of total anthropogenic greenhouse gas emissions in Ukraine in 2024 was 30.8%, which is twice the average for this gas in the European Union and makes up more than half of anthropogenic carbon dioxide emissions [2]. The main source of methane emissions in Ukraine is the agricultural sector, especially livestock. Additionally, significant quantities of methane are produced in household waste landfills.

The recently adopted Law of Ukraine "On the Basic Principles of State Climate Policy," dated 08.10.2024, establishes the legal and organisational foundations of the national climate policy. It primarily focuses on reducing anthropogenic greenhouse gas

emissions through low-carbon development in Ukraine, achieving climate neutrality, and promoting climate change mitigation and adaptation. Among the authorities responsible for determining the principles of state climate policy, as well as regulation and management in this field, the central bodies involved in agricultural policy are not even mentioned. This omission is noteworthy considering that the agricultural sector in Ukraine is one of the main sources of anthropogenic greenhouse gas emissions. It should also be emphasised that, unlike carbon dioxide, which is regulated by several legislative and regulatory acts in Ukraine, there is a notable lack of attention to controlling activities aimed at reducing methane emissions, despite our country's relevant obligations. Thus, Ukraine, along with 159 other countries, joined the United States and the EU's initiative to lower methane emissions, the "Global Methane Pledge." [3].

This initiative, launched in 2021, aims to reduce methane emissions by 30% by 2030 compared to 2020 levels [4]. However, in legislative terms, Ukraine has not actually changed the situation regarding the adoption of regulations aimed at combating methane emissions. For instance, the EU has a clear legislative framework for regulating emissions of this gas, which addresses a wide range of issues. Specifically, Regulation (EU) 2024/1787 sets out rules for the accurate measurement, monitoring, reporting, and verification of methane emissions in the oil, gas, and coal sectors, as well as measures to reduce these emissions [5]. For the most part, this European legislation targets the energy sector and currently serves as the primary and most comprehensive regulation for methane in the EU. Additionally, the European Commission introduced EU strategies to reduce methane emissions in 2020 [6].

In Ukraine, only the Order of the Cabinet of Ministers of Ukraine dated 7 July 2023, No. 607-r "On Approval of the Action Plan for the Implementation of Ukraine's Climate Policy as Part of Participation in the Global Methane Pledge" has been adopted in this area [7]. This plan covers only one task related to the agricultural sector, specifically exploring the potential for biomethane production from agricultural waste. The proposed measure offers partial reimbursement of facility costs—up to 50%—and for farming cooperatives, up to 70%—for processing animal by-products in categories II and III.

Separately, it should be noted that this government order refers to the EU strategies mentioned above, which are published on the official EU website in the form of the "Communication of the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on EU strategies to reduce methane emissions" dated 14 October 2020, No. COM (2020) 663 final [8]. However, for some reason, the Cabinet of Ministers of Ukraine has called this communication the EU Regulation, or European legislative act, although this notification is unrelated to that.

Among the potential proposals to improve the regulation of activities affecting the climate sector, attention should be given to establishing taxes on emissions of various greenhouse gases. Currently, in Ukraine, only carbon dioxide (CO₂) among greenhouse gases is taxed. The tax rate on anthropogenic emissions of this gas is only 30 Ukrainian hryvnias (approximately 0.73 USD) per tonne of emissions, according to paragraph 243.4. Century. 243 of the Tax Code of Ukraine [9], although a comparable

tax, such as in Sweden, averages 145 USD per tonne [10], but on average worldwide, this tax is 19 dollars per tonne.. Generally, in EU countries, the long-standing principle of 'polluter pays' applies to all anthropogenic gases, as outlined in Article 174(2) of the Treaty establishing the European Community (Treaty establishing the European Economic Community), amended as of 01.01.2005 [11].

In our view, introducing a climate tax, especially on methane emissions in the agricultural sector, can effectively encourage farmers to adopt cleaner technologies for processing livestock waste, which currently emits methane and nitrous oxide (N₂O), another greenhouse gas. For instance, storing animal waste in manure storage facilities, according to the European Environment Agency, is responsible for 17% of total greenhouse gas emissions in agriculture [12]. Therefore, processing waste in biogas reactors will not only reduce emissions but also help generate an alternative renewable energy source. It is important to note that EU countries have a Common Agricultural Policy (CAP) that supports farmers' incomes through environmentally friendly farming. Farmers receive financial support, the amount of which depends on the size of their farm in hectares [13].

Based on the above, Ukraine needs to enhance climate legislation concerning anthropogenic emissions of specific greenhouse gases, particularly methane, by amending or adopting new regulations regulating activities related to the formation and emissions of these gases, as well as their measurement, monitoring, and reporting. We consider it appropriate to introduce financial incentives such as benefits and financial support simultaneously with the implementation of a tax on methane emissions in the agricultural sector.

References

1. Wilson, L., New, S., Daron, J., Golding, N. (2021). Climate Change Impacts for Ukraine. Met Office: 1-34. URL: https://mepr.gov.ua/wp-content/uploads/2023/07/2_Vplyv-zminy-klimatu-v-Ukrayini.pdf (accessed 08.09.2025).
2. Crippa, M., Guizzardi, D., Pagani, F., Banja, M., Muntean, M. et al. (2025) GHG emissions of all world countries – 2025, Publications Office of the European Union, 2025. – URL: <https://data.europa.eu/doi/10.2760/9816914> (accessed 01.09.2025).
3. Global Methane Pledge. Factsheet 2024. Global Methane Pledge Ministerial. – URL: <https://www.globalmethanepledge.org/news/factsheet-2024-global-methane-pledge-ministerial> (accessed 08.09.2025).
4. European Commission. (2021). Launch by United States, the European Union, and Partners of the Global Methane Pledge to Keep 1.5C Within Reach. Statement/21/ 5766. URL: https://ec.europa.eu/commission/presscorner/detail/en/statement_21_5766 (accessed 08.09.2025).
5. Regulation (EU) 2024/1787 of the European Parliament and of the Council of 13 June 2024 on the reduction of methane emissions in the energy sector and amending Regulation (EU) 2019/942. URL: <https://eur-lex.europa.eu/eli/reg/2024/1787/oj/eng> (accessed 08.09.2025).
6. Reducing greenhouse gas emissions: (2020). Commission adopts EU Methane Strategy under the European Green Deal. Press Release of 14 October 2020. Brussels.

URL: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1833 (accessed 01.09.2025)

7. Order of the Cabinet of Ministers of Ukraine dated July 7, 2023 No. 607-r "On Approval of the Action Plan for the Implementation of Ukraine's Climate Policy as Part of Participation in the Global Methane Pledge". – URL: <https://zakon.rada.gov.ua/laws/show/607-2023-%D1%80#Text> (accessed 01.09.2025)

8. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on EU strategies to reduce methane emissions (2020). No. COM (2020) 663 final. Brussels, 14.10.2020. Document 52020DC0663. URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52020DC0663> (accessed 01.09.2025).

9. Tax Code of Ukraine of December 2, 2010 (as amended on 04.09.2025). Bulletin of the Verkhovna Rada of Ukraine, 2011, No. 13-14, No. 15-16, No. 17, art.112. URL: <https://zakon.rada.gov.ua/laws/show/2755-17#Text> (accessed 08.09.2025).

10. State and Trends of Carbon Pricing 2023. (2025). Washington, DC: World Bank, 87 pp. <https://doi.org/10.1596/978-1-4648-2255-1>

11. European Union consolidated versions of the treaty on European Union and of the treaty establishing the European Community (2002). (2002/C 325/01). Official Journal of the European Communities, 24.12.2002, C325/1, 184 pp. (accessed 01.09.2025).

12. Greenhouse Gas Emissions from Agriculture in Europe (2024). European Environment Agency. Analysis and Data. October 31, 2024. URL: https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emissions-from-agriculture?utm_ (accessed 01.09.2025).

Aims of income support for farmers (2023). European Commission. Agriculture and rural development URL: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/income-support-explained_en (accessed 01.09.2025).

КРИМІНАЛІЗАЦІЯ ЕКСПЛУАТАЦІЇ ДІТЕЙ У ЗБРОЙНИХ КОНФЛІКТАХ: ЗМІНИ ДО СТАТТІ 438 КК УКРАЇНИ ТА ЇХ УЗГОДЖЕНІСТЬ ІЗ МІЖНАРОДНИМ ПРАВОМ

Бухтоярова Валерія Вадимівна
аспірантка

Кафедра національного, міжнародного права та правоохоронної діяльності
Херсонський державний університет

Куш Віталій Григорович
начальник відділу Херсонської обласної прокуратури
Україна

Натепер, під час міжнародних збройних конфліктів відповідальність за вчинення воєнних злочинів набула гострої актуальності.

Захист дітей у період збройних конфліктів є одним із фундаментальних напрямів розвитку міжнародного гуманітарного права та сучасної системи