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AIR PROTECTION REGIME IN EUROPE

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Abstract: The legal status of atmospheric air is twofold. First, in international air law, when it refers to the airspace of a state, it refers to the air column above the border line and to the air that lies within a given territory the space to which, as a rule, the jurisdiction of a given state applies, although its composition is constantly changing. This legal status is determined by the state and interstate agreements and is applied in the legal regulation of air communications, transportation. Secondly, under international environmental law, speaking of air protection, we consider air an undivided resource. Any major source of pollution not only contributes to the spread of harmful substances to the local or local level, but also goes beyond the borders of the state, i.e., has a transboundary nature and therefore requires the consolidation of efforts of the world community to combat its pollution. The danger of uncontrolled changes in the state of atmospheric air and the consequent threat to thex existence of living organisms, including humans, have required decisive practical measures to protect it, national and international legal regulation of its. The world community must work together to combat this problem. The task of paramount importance in this sphere is the adoption of a UN universal convention on the protection of atmospheric air.
Keywords: climate change, air protection, international air protection regime

Tytuł: Reżim ochrony powietrza w Europie
Streszczenie: Status prawny powietrza atmosferycznego jest dwojaki. Po pierwsze, w międzynarodowym prawie lotniczym, gdy odnosi się do przestrzeni powietrznej państwa, dotyczy kolumny powietrza nad linią graniczną oraz powietrza znajdującego się w obrębie danego terytorium, czyli przestrzeni, do której zazwyczaj stosuje się jurysdykcję danego państwa, choć jej skład stale się zmienia. Ten status prawny określany jest przez państwo oraz umowy międzypaństwowe i znajduje zastosowanie w regulacjach prawnych dotyczących komunikacji i transportu lotniczego. Po drugie, w świetle międzynarodowego prawa ochrony środowiska, mówiąc o ochronie powietrza, traktuje się je jako zasób niepodzielny. Każde znaczące źródło zanieczyszczeń nie tylko przyczynia się do rozprzestrzeniania szkodliwych substancji na poziomie lokalnym, lecz także wykracza poza granice państwa, czyli ma charakter transgraniczny, co wymaga skoordynowanych działań społeczności międzynarodowej w celu zwalczania jego zanieczyszczenia. Zagrożenie niekontrolowanymi zmianami

stanu powietrza atmosferycznego oraz wynikające z tego zagrożenie dla istnienia organizmów żywych, w tym człowieka, wymagało podjęcia zdecydowanych działań praktycznych w zakresie jego ochrony oraz regulacji prawnych na szczeblu krajowym i międzynarodowym. Społeczność światowa musi współdziałać w zwalczaniu tego problemu. Zadaniem o nadrzędnym znaczeniu w tej sferze jest przyjęcie uniwersalnej konwencji ONZ dotyczącej ochrony powietrza atmosferycznego.
Słowa kluczowe: zmiany klimatu, ochrona powietrza, międzynarodowy reżim ochrony powietrza

INTRODUCTION

One of the global problems of mankind in the 21st century is the environmental problem. Atmospheric pollution associated climate change and other environmental problems have a negative impact on the environment. Environmental disadvantage and environmental crises have always existed, but today, in the author's opinion, humanity is on the brink of a precipice, from which we must get out now (Agrawala, Andresen 2018). In the nineteenth century, environmental characteristics remained stable and changed in the order of the norm, without violating its natural indicators. As time passed, humans were destroying the ecosystem more and more, but nature was holding back this blow. The danger of irreversible changes in the natural environment in certain regions of the Earth became real because of the increased scale of human economic activity. By the 70s of the 20th century more than 250 species and subspecies of vertebrates had disappeared. In the 80s of the twentieth century, on average, one animal species disappeared daily, and one plant species disappeared weekly. Currently, many species of animals, birds and plants are under threat of survival (Helmut et al. 2018).

This research draws to some extent on the legal and regulatory frameworks for protecting the world's air resources from climate change, as well as on regional and federal programs to protect air resources from climate change currently in place in various developed and developing countries that are pursuing sustainable development goals.

The research is based on the philosophical principle of universal connection and interdependence of all phenomena of the surrounding reality (determinism), the method of dialectics. The method used in this study is the secondary one. A method used in this category is that scholarly articles are selected from the internet sources and then the statements of scholars analyzed to make them unique by emphasizing current researcher's judgements. Henceforth, there are two methodological approaches, which are primary and secondary. Primary approach is the ones which require proper surveys, interviews of third party, and then analysis of statically data. This method is the basis of diverse studies. In the current research only secondary data findings are employed to answer the research questions.

As for the research, following are the questions, which are answered throughout the current research work, all the sources which are used cited at the end.

1. What is the role of international air protection regimes regarding global environmental protection?
2. What are the main objectives of international air protection regimes?
3. What are the specific features and efficiency of international air protection measures?
4. How did the development of intra-state regulation of atmospheric air protection start?
5. How did the UN Convention play the role in the protection of atmospheric air?
6. What standards and objectives related to health that the European Union (EU) needs to fulfill?

Air pollution harms human well-being and biological systems. Many people do not live in a clear climate, according to current trends. To move forward in a possible way, Europe must be aggressive and go beyond current regulation. Humans' well-being get harm by air pollution and the climate. In Europe, greenhouse gas emissions have declined sharply over the past several decades, bringing higher air quality throughout the region. However, air pollution is highly concentrated, and air quality problems continue to occur. A critical level of European society lives in the regions, especially urban communities, where violations of air quality guidelines: ozone, nitrogen dioxide and particulate matter (PM) emissions are a major contributing factor to health gambling (Helm, Sprinz 2019). A few nations have exceeded their single 2010 limit to release four major air pollutants. This way is important as in the reduction of air pollution. Air pollution is a local, European, and hemispheric problem. Air pollution imported from one country may be sent to climate change, adding to, or causing bad air quality elsewhere.

PM - particulate matter, nitrogen dioxide and low levels of ozone are currently considered to be the three most important pollutants that affect human health. Big holes and large vents in these pollutants run through the severity of the effect, from obstructing the respiratory tract to sudden passage. About 90% of urban employers in Europe are exposed to toxic substances in high-risk areas higher than the level of air quality considered to be harmful to health (Helm, Sprinz 2019). Likewise, fine particulate matter (PM2.5) in the air has been tested to reduce future futures in the EU over eight months. Benzopyrene is a carcinogen that causes increased anxiety, as rehabilitation is beyond the threshold set to protect human well-being in a few large metropolitan areas, especially in central and eastern Europe.

Air pollution also harms our current situation.

- Fermentation was significantly reduced somewhere between 1990 and 2010 in Europe's most critical biological regions that were exposed to the destructive content of Sulfur and nitrogen compounds.
- An environmental problem, Eutrophication, brought on by the contribution of the most harmful ingredients to biological systems, has seen little improvement. The area of biological systems affected by excess nitrogen in the environment declined slightly between 1990 and 2010.
- Plant damage is caused by the depletion of the ozone layer. Many agricultural crops are being introduced at ozone levels that exceed the long-awaited EU greenhouse protection policy. This includes most of the agricultural regions, especially in southern, central, and eastern Europe (Andresen, Wettestad 2019).

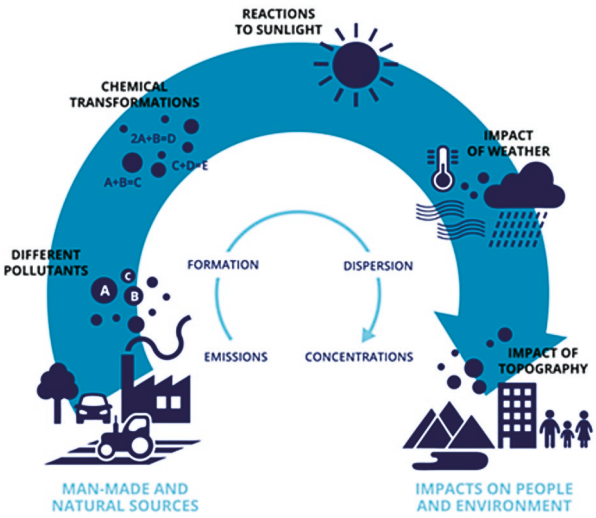

Figure 1. Illustration of Environmental Pollution
Source: (European Environmental Agency 2013)

AIR POLLUTION SOURCES

Anthropogenic and natural origin, and many other various sources are there which causes air pollution. Some of them are listed below:

- The use of petroleum products during electricity, transportation, industry, and households.
- Modern cycles and dissolving uses, for example in commercial and mineral industries.
- Agribusiness.
- Wasting treatment.
- Common sources of emissions are: Volcanic eruptions, blown debris, sea salt and the emergence of unexpected natural compounds from plants.

EUROPEAN UNION POLICIES

The stated goal of the EU is to achieve air quality standards that do not lead to unintended consequences, risks, human health, and climate change. The EU is working at many levels to reduce the risk of air pollution: regulation; co-operating with areas responsible for air pollution, as well as international, community and provincial experts and non-governmental organizations; and testing (Bernauer 2018). EU strategies expect to reduce air pollution by reducing emissions and drawing certain lines and targets for air quality. At the end of 2013, the European Commission approved the proposed Air Quality Package that included new measures to reduce air pollution.

The data server of the European Environment Agency (EEA) supports the execution of EU regulation relating to airflow and air quality. To improve the air quality in Europe, long-term strategic plans development and EU air pollution schemes are focused by EAA.

The working on which EEA's focuses are:

- make the information of air pollution freely accessible,
- recording and monitoring erosion and associated ecosystems in Europe, and
- explore the coherence and co-operation between air pollution and regional practices, including environmental change, energy, transport, and industry.

Figure 2 shows guidelines for the various pollutants present in the air. These pollutants work at different times because there are different health effects depending on the exposure time. Other pollution data can be found similarly on the web based on EU air quality standards and World Health Organization (WHO)

compliance standards. WHO rules of etiquette are designed for social security and are largely stricter than EU rules (Sprinz 2016). There are also other European laws and regulations that deal with different sources of air pollution. These include Shipping and Non-Road Mobile Machinery (NRMM), which are frequently upgraded with other vehicles in rough terrain.

Pollutant	Concentration	Averaging Period
Fine particles ($PM_{2.5}$)	25 $\mu g/m^3$	1 year
Fine particles (PM_{10})	50 $\mu g/m^3$	24 hours
	40 $\mu g/m^3$	1 year
Sulphur dioxide (SO_2)	350 $\mu g/m^3$	1 hour
	125$\mu g/m^3$	24 hours
Nitrogen dioxide (NO_2)	200 $\mu g/m^3$	1 hour
	40 $\mu g/m^3$	1 year
Lead (Pb)	0.5 $\mu g/m^3$	1 year
Carbon Monoxide (CO)	10 $\mu g/m^3$	Maximum daily 8 hour mean
Ozone (O_3)	120 $\mu g/m^3$	Maximum daily 8 hour mean

Figure 2. Standards of Air Quality in the Europe
Source: (Ezeah, Finney, Nnajide 2015)

Euro Standards imposes certain restrictions on the exit of new vehicles. There has been a continuation of Euro's strict rules for petrol and diesel vehicles (and vans) as well as solid vehicles. Diesel cars, so far, have been required to comply with less stringent regulations than petrol-powered vehicles, yet both meet at Euro 6. Sadly, the Euro practices have not been as successful as originally expected. The driving cycles in which these vehicles are tested are not certified driving certificates, especially in metropolitan areas. It is also easy to reduce emissions from a steady and steady drive, as opposed to slow driving or stopping the start of a major city, and the test cycle has joined these provinces. (Downie, Brown 2017). Later this decline of the present truth was not as broad as the credibility. Repeatedly, from the top Euro guidelines have been higher than past cars under the conditions of driving in big cities. Later there were changes in the test cycle to try to overcome this "cycle beating" by car manufacturers.

THEORETICAL DISCUSSION

The severity of air pollution affects human health as well as the depletion and depletion of ground ozone. The EU has put in place measures to limit single sources and public sources of climate change for significant toxicity. The new Directive hopes to pinpoint the five declines in the five poisons that contribute to human and environmental well-being. Also, the European Environmental Agency (EEA) makes air quality, air quality programs, accurate guidelines accessible to most people and information monitors to help plan strategies, monitoring, evaluation, and communication between strategists and the public (European Environment agency, 2022).

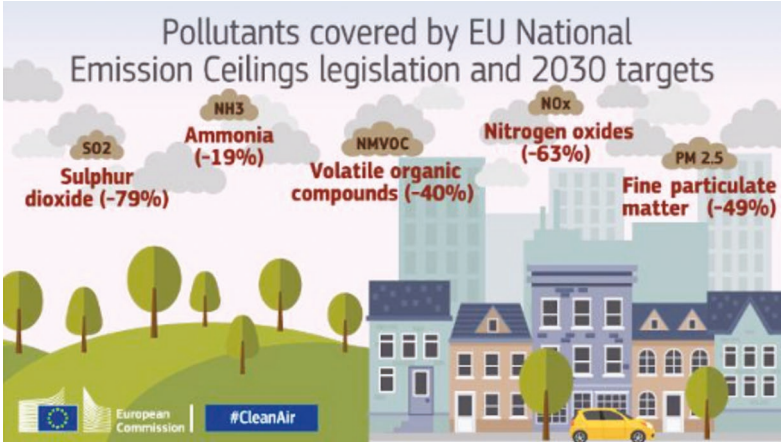

Figure 3. EU National Emission Ceiling Legislation and 2030 Targets
Source: (European Environmental Bureau 2020)

The EU Ceilings Directive imposes obligations on the UK to meet its target of public exposure to foul salts, nitrogen oxides, non-methane VOCs and Sulfur dioxide in 2010, the UK did, however limit nitrogen oxide was very close (European Environment agency 2022). The guideline will be revised in due course to match the solid public roof agreed upon by the Gothenburg Convention in May 2012, as well as to set an ambitious PM2.5 target. The government expects the industry to make the best use of anyone who can hope to have best available techniques (BAT) through the Environmental Permitting Regulations (EPR) to convey a significant commitment to the ongoing reduction in pollutants.

UNECE's Gothenburg Protocol sets out as a public framework in the EU Ceilings Directive. It also contains plug-ins with exit values of explicit circuits or

pieces of gear that we can control (Young 2019). The UK joined the first Gothenburg Protocol however by reservation that the new used ELV motors, for example, waste gas engines would not be used on the grounds that it was not possible to do so. The 2012 Gothenburg Protocol similarly changed the exit limit values without additions.

ANALYSIS OF DISCUSSION

As in figure 2, standards of air quality are defied. Here discussion over them is based. The 2008 Ambient Air Quality Directive (2008/50 / EC) draws certain lines of major pollutants into the air we inhale. These officially reduced amounts are for the replacement of important pollutants that affect normal health, such as particle PM10 and PM2.5 and nitrogen dioxide (NO_2). The authority also limits the scope limits of various pollutants, such as ozone, Sulfur dioxide and carbon monoxide.

The limit points set out in the Ambient Air Quality Directive are strictly adjusted to meet UK air quality targets, with comparable standards and levels (Gasser 2019). The fourth girl air quality authority (2004/107/EC) focuses on the open-air levels of pollutant metals and hydrocarbons with a strong polycyclic aroma. These two orders were delivered to the UK through the 2010 Air Quality Regulations (Agrawala, Andresen 2018). Despite the set of standards, the Ambient Air Quality Directive contains requirements for Member States to address the PM2.5 exposure deficit. This is currently the responsibility of the federal government, and neighborhood experts are not expected to follow this, although many of the immediate steps to address PM10 will affect PM2.5 again as diesel vehicles are an important source of PM2.5 emissions.

The UK has now violated the European Ambient Air Quality Directive for PM10 and NO_2. The European Commission has ruled out the possibility of fining them for violating the order, a fine that could cost several pounds. The UK government is also currently under trial in UK courts during this break. Natural Protection UK presses public authorities for additional public service, as well as additional support for nearby work, to improve air quality and protect human well-being.

It is noteworthy that a significant number of issues addressed in this article have similarly tended to peace agreements, for example, the Vienna Convention for the Protection of the Ozone Layer of 1985, the Montreal Protocol to 1987 on Substances that Deplete the Ozone Layer, as reviewed, United 1992 Nations Framework Convention on Climate Change, and other international instruments, including territories. With the exercises combined with such arrangements, it is

assumed that the proposals in this section do not oblige managers to take a step beyond the formal plans of those legal instruments (Andresen, Wettestad 2019). Under this chapter, however, governments may implement additional measures that are consistent with the provisions of said legal instruments. It is generally recognized that the activities that may be carried out for the purpose of protecting the atmosphere must be coordinated with the needs of social and economic development and must be integrated to avoid adverse effects on the latter and take full account of the legitimate priority needs of developing countries for sustainable economic growth and the eradication of poverty. Concerns about climate change and variability, air pollution, and ozone depletion require sensible, financial, and social data to minimize the risks involved. Higher access and more accurate expectations of the various wind structures and affected areas, as well as their effects on human well-being and their interactions with financial resources (Gasser 2019).

CONCLUSION

As discussed, the roles and standards of EU has regarding air pollution regime. All the research-based answers with relevant citations discussed in this research paper. Thus, it is concluded that the EU adopts multiple tasks to decrease exposure to air pollution, including law, sectors collaboration who are responsible for air pollution, national, international, and regional authorities, and non-governmental agencies, and research. Air quality has significantly improved of EU laws. Between 2000 and 2020, the percentage of urban people exposed to pollutant levels exceeding EU regulatory requirements designed to safeguard human health decreased, particularly for PM2.5 and NO_2 (partly due to road transport emissions reductions in 2020 caused by Covid-19-related lockdown measures). In 2020, less than 1% of persons were exposed to levels exceeding EU regulatory limits for these pollutants. Still the poor air quality remains the major problem in 2020 for citizens of about 12%, they were exposed to O_3 and 11% to PM10 levels above the EU standards.

The EU countries need to apply combustion method when the pollutants are comprised of natural gas and/or smoke. Natural pollutants are released into the catalytic combustion or flame when they are completely transformed into something less harmful than carbon dioxide and water.

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