THE ROAD TO CLEAN AIR

AN ASSESSMENT OF ANTI-SMOG MEASURES IN POLAND AND RECOMMENDATIONS FOR THE FUTURE: LOW-STACK EMISSION, TRANSPORT AND INDUSTRY

EXECUTIVE SUMMARY

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INTRODUCTION

This executive summary presents the main conclusions of "The Road to Clean Air" report, which gives a comprehensive review of air quality in Poland. It describes the present situation, recommendations of changes, and progress assessment of measures in three key areas: low-stack emission, transport and industry. The report has been drafted by a group of experts and contains information that has been **collected specifically** for the purposes of the report and has never been published before.

The report will be updated every year, which will enable important areas of air quality in Poland to be seen from a system-based perspective. The regular editions will create a basis for reliable and comparative assessment of the individual components and measures undertaken to protect clean air. Our report is not only a road sign, but also a recipe that can be used by everyone: the central and local authorities - by implementing effective solutions, non-governmental organisations - by engaging into awareness raising and dissemination of important information, researchers - by exploring new solutions, and finally citizens - by exerting pressure on government institutions and adopting proenvironmental attitude in everyday live.

The report can be found at: cleanaircentre.eu and polskialarmsmogowy.pl

All sources of the presented data are referenced in the full version of the report.

AIR QUALITY

>> AIR QUALITY ASSESSMENT

In a predominant majority of cases, air quality in Poland in 2019 was better in comparison to 2018. However, an analysis of air pollutant concentrations has demonstrated that the improvement of air quality in the majority of reporting locations was incidental, i.e. is attributable mainly to less "smog-inducing" meteorological conditions. Therefore, there is a high risk that worse weather will result in worse air quality as well.



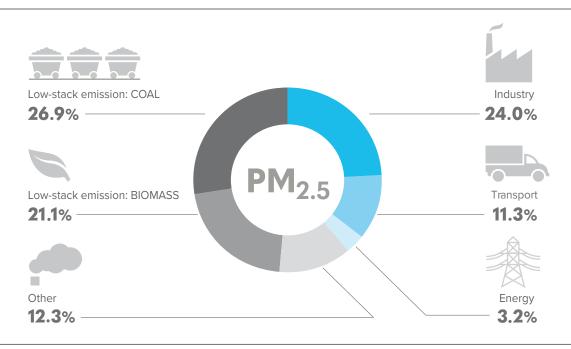
INADEQUATE PROGRESS. Only one third of municipalities have recorded a statistically significant (non-incidental) improvement in particulate matter concentration.

>> EMISSIONS FROM THE MAIN SECTORS

The low-stack emission sector, i.e. combustion of solid fuels (coal and wood), mainly in household heating appliances and small manufacturing plants, etc., has the highest share in the emissions of PM2.5 and PM10 particulate matter, as well as benzo(a)pyrene. Noteworthy, in the context of low-stack emission, the problem is not just the burning of coal, but the burning of biomass as well. For PM2.5, biomass combustion in stoves and boilers represents 21.1% of the total emissions, i.e. only slightly less than coal burning (26.9%).

FIGURE 1

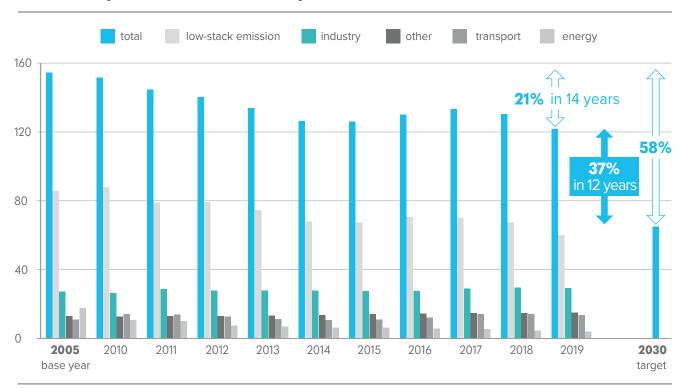
PRIMARY AIR EMISSIONS IN 2019, BY THE MAIN EMISSION SECTORS



To comply with the law, **Poland must lower PM2.5** emissions by **89.6 thousand tonnes** relative to 2005. By 2018 (14 years), PM2.5 emissions fell by 24.3 thousand tonnes. It means that **over the next 12 years**, Poland must lower the emissions by another 66.3 thousand tonnes, i.e. **triple its current effort** in anti-smog measures.

FIGURE 2

PM2.5 EMISSIONS IN 2005-2019, BY EMISSION SOURCE, AND THE REDUCTION TARGETS UNTIL 2030 [THOUSANDS OF TONNES]





INADEQUATE PROGRESS. To achieve the emission reduction target specified in EU law, the current pace needs to be increased threefold.

LOW-STACK EMISSION

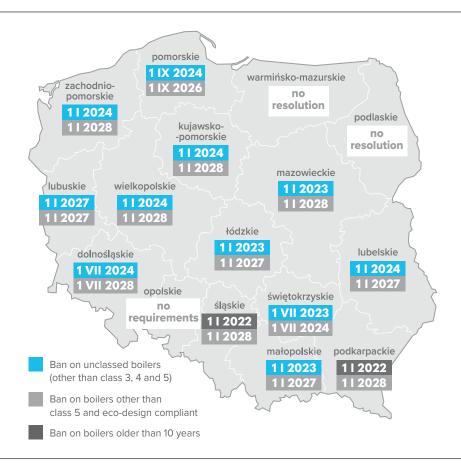
>> ANTI-SMOG RESOLUTIONS

It is a positive development that **anti-smog resolutions** have already been adopted in as many as **13 provinces**. Regrettably, research demonstrates that the awareness of the restrictions on the use of heating appliances imposed by the resolutions is low. **In the group of people whose boilers should be replaced, only 40% have heard about the ban on high emission boilers. Nationwide, only 13% of owners of boilers that fail to meet the requirements of the resolutions** are aware of the effective date of these restrictions.

In the 13 provinces which adopted anti-smog resolutions, there are a total of **about 2.7 million boilers to be replaced** over a period of six to seven years, depending on the province. It means that nationwide on average about 425 thousand boilers which are non-compliant with the anti-smog resolutions need to be decommissioned every year. The figures above refer only to single-family houses, and do not include stoves in multi-family housing.

MAP 1

EFFECTIVE DATES OF THE MOST IMPORTANT PROVISIONS OF ANTI-SMOG RESOLUTIONS



The primary recommendation in this area is to grow the awareness of the resolutions and the effective dates of bans on using the individual categories of boilers. Without a much faster pace of boiler replacement, the resolutions will remain a dead letter. Solid fuel appliances, i.e. fired with coal, wood or other types of biomass, as well as stoves and fireplaces, should be subject to mandatory periodical technical inspections, no less frequently than at least every two years.



INADEQUATE PROGRESS. The laws have been adopted. but the pace of making heating installations compliant with requirements of the anti-smog resolutions is too slow.

>> AIR QUALITY PLANS

Although Air Quality Plans (AQPs) should serve as a fundamental instrument of the anti-smog policy, most of them do not stipulate many measures that will translate into a clear reduction of emissions, be it from households or the transport sector. A majority of the AQPs state general provisions only and do not specify any detailed requirements or measures to be undertaken by municipalities. Consequently, air quality plans are hardly effective in bringing about any improvements in air quality. The Air Quality Plan of the Małopolskie province is one positive exception. It contains a list of very specific requirements imposed on municipal authorities, designed to implement the anti-smog resolution for Małopolska.

Air Quality Plans should incorporate specifically defined measures that will translate into better air quality. Quantitative targets should be set for each municipality as regards replacement of heating appliances that do not comply with the anti-smog resolution. Every municipality should have a duty to operate advisory desks, to provide inhabitants with information about the available grants to the replacement costs of old heating appliances noncompliant with the anti-smog resolution, improvements in energy efficiency or installation of renewable energy sources, Furthermore, every municipality should have the duty to conduct information campaigns to raise awareness of the anti-smog resolutions and the broad scope of inspection measures to ensure compliance. Air quality programmes should eliminate public subsidies to any new coal-fired heating sources.



INADEQUATE PROGRESS. With only a few exceptions, AQPs do not contain specific commitments to abatement measures that would translate into better air quality, and in particular into a faster pace of boiler replacement.

>> CLEAN AIR PROGRAMME

The primary financial programme in Poland offering subsidies to the replacement cost of outdated boilers is the Clean Air Programme (CAP) implemented by the National Fund for Environmental Protection and Water Management (NFOŚiGW). Its purpose is to replace about 3 million old coal- and wood-fired heating appliances by 2028. The programme has undergone positive reforms: streamlining of procedures, more support for RES, the commitment to discontinue grants for coal-fired boilers, incorporation of municipalities and banks into the programme grants distribution network.

Although it increased significantly in the first quarter of 2021, the pace of the programme, i.e. the number of replaced old boilers, is still too slow. From September 2018 until the end of April 2021, about 185 thousand applications for heating source replacement were made - which represents as little as only 6% of the ten-year objective of the programme.

TABLE 1

REPLACEMENT PACE OF OUTDATED HEATING APPLICANCES

REPLACEMENT PACE OF OLD HEATING APPLIANCES	CAP 1.0: 19.09.2018- 14.05.2021	CAP 2.0: 15.05.2020- 31.03.2021	DATA FOR THE LAST MONTH OF THE ANALYSIS – MARCH 2021
Number of applications for a heating source replacement	91 419	79 797	13 229
Number of days	603	320	31
Daily pace at present	152	249	427
Required daily pace	822	822	822

Source: data provided by the National Fund for Environmental Protection and Water Management (as of 31 March 2021).

To make the CAP more effective, support should be provided for the most impoverished households, which suffer from exclusion from the programme. Furthermore, a mechanism to offer upfront financing for boiler replacement should be created, so that poorer applicants do not need to pay for the replacement themselves and then wait to be reimbursed. Moreover, the system of settling the CAP grant should be simplified. The CAP should be promoted in a nationwide social awareness raising campaign. The distribution network of the programme should be joined by the largest Polish banks: PKO BP, Pekao SA and Bank Pocztowy.



MODERATE PROGRESS. The number of applications to the programme is increasing at a growing pace, however it is still only half of the pace that is required.

>> THERMO-MODERNISATION TAX ALLOWANCE

The thermo-modernisation allowance, which allows expenses incurred on thermo-modernisation (e.g. building insulation, boiler replacement) in single-family houses to be deducted from the taxable income, has been available since 2019. In total, 208 500 taxpayers used the allowance, the majority in the Śląskie province - 33 540. The average allowance amount is PLN 15 065 - this is the average amount of costs presented for deduction. In other words, it is much lower than the maximum available limit of PLN 53 thousand.

The tax allowance should also be available in respect of investment projects carried out by flat owners in multifamily residential housing, such as replacement of the heating source or window frames, etc. The allowance should be broadly promoted, especially among owners of houses heated by old coal- and wood-fired boilers which are not compliant with the requirements of the anti-smog resolutions. Only taxpayers whose heating appliance complies with the target requirements of the anti-smog resolution, or which is being replaced to one compliant with the resolution, should be eligible to use the allowance.



ADVANCED IMPLEMENTATION. The tax allowance has been implemented and is growing in popularity. However, in supporting investment in coal boilers as well, the instrument is inconsistent with Poland's Energy Policy 2040 and the climate objectives.

>> ELIMINATION OF SOLID FUEL BOILERS IN MULTI-FAMILY RESIDENTIAL BUILDINGS

Solid fuel boilers and stoves are also used in multi-family residential buildings. Regrettably, neither the Clean Air Programme, nor the thermo-modernisation tax allowance is available for these flats. Private apartment owners who would like to replace their heating source have no access to this form of government support.

The National Fund for Environmental Protection should launch a programme in support of replacement of solid fuel heating appliances in multi-family residential buildings addressed to apartment owners. The support for local authorities should not be limited to 100% multi-family council housing buildings, but also cover buildings with both council housing and private flats.



INADEQUATE PROGRESS. A preliminary concept of a programme for multi-family residential buildings has been developed, however it has not been adopted by the National Fund for Environmental Protection and Water Management.

COAL AND BIOMASS - CONSUMPTION AND STANDARDS

In 2019, the so-called small entities (primarily households) used over 10 million tonnes of coal, and even though this value was the lowest in many years, Polish households burn the most coal in the European Union, as much as 87%. Over the past 10 years, households burnt annually almost the same amount of biomass as coal. Since 2014, a significant reduction in the use of biomass has been observed, however its consumption is still high. The lowest volume achieved in 2019 was almost 10 million tonnes of wood equivalent, i.e. over a million tonne more than coal.

The first coal quality standards were adopted in 2018, however they are insufficient and still allow traders to sell coal with high ash, moisture or sulphur contents. The Trade Inspection has enforced these regulations since 2019. The inspections reveal a significant problem whereby the actual quality of the fuel sold does not reflect the coal quality attested in the relevant certificates. In 2020, almost one fifth (19%) of the tested coal samples had worse parameters than those declared in the certificate. In other words, every fifth consumer was misled. There are still no quality standards for biomass pellets, in spite of the fact that the consumption of this fuel is growing, and pellet-fired boilers receive public fund subsidies.

FIGURE 3

RESULTS OF COAL QUALITY CERTIFICATE INSPECTIONS AND THE ACTUAL QUALITY OF THE FUEL SOLD



The normative limits for coal should be tightened immediately, in particular as regards the permissible contents of moisture, ash and sulphur, which are currently much higher than those proposed by experts. It applies in particular to the so-called eco-pea coal, i.e. fuel for class 5 and eco-design compliant boilers. The existing parameters of eco-pea coal do not guarantee adherence to the specified emission standards in such boilers, i.e. appliances permitted for use by anti-smog resolutions. Trade Inspection audits at coal trading companies should be continued, at least within the current scope or with greater frequency. Mandatory quality standards for pellets should be adopted urgently.



MODERATE PROGRESS. A coal quality standards regulation has been enacted and the inspection regime continues. Quality parameters for coal should be tightened and mandatory standards for pellets should be introduced.

>> BOILER INVENTORY

There is still no data on heating sources in buildings in Poland. An attempt to organise a nationwide system is the Central Register of Emission Intensity of Buildings (CEEB), developed and implemented by the Central Office of Building Control (GUNB). The collection of CEEB data is to commence in July 2021 and will take one year. However, it is not certain how much data will be obtained in this time.

A nationwide campaign is required to inform about the duty to lodge a declaration on the sources of heating/ fuel combustion to the Central Register of Emission Intensity of Buildings. Otherwise, the percentage of buildings/ installations actually registered in the database after 12 months may be low.



MODERATE PROGRESS. The regulations on the Central Register of Emission Intensity of Buildings have been adopted, however it is still unknown how much data will be collected. An information campaign is required.

>> REGULATION ON SOLID FUEL BOILERS

Adoption of emission standards for solid fuel (coal and wood) fired boilers in 2017 and 2019 was undoubtedly one of the most important regulations to address the problem of low-stack emission. Prior to their enactment, from 150 to 200 thousand unclassed solid fuel boilers (the so-called "smokies"), characterised by high emissions, were sold in Poland. As a result, any measures to subsidise installation of environmentally friendly heating sources had no chance to produce any widespread effects.

In 2020, the Trade Inspection conducted audits of a total of 658 boiler models - in terms of their compliance with both domestic and EU regulations. As many as 284 models had formal defects (e.g. type identification, documentation), and 12 out of 48 boilers which received laboratory testing did not meet the mandatory emission limits for harmful substances (such as particulate matter, carbon oxide or nitrogen oxides) of the applicable efficiency standards. One test was repeated, and the model was deemed compliant.

A persisting problem is the trade in second-hand "smokies". It must be addressed by more precise legal regulations and intensified trade inspection audits. Moreover, inspections of boilers newly introduced into the market should be continued as well.



ADVANCED PROGRESS. Emission standards for new boilers have been introduced and are enforced. There are still legal loopholes as regards selling of used appliances.

TRANSPORT

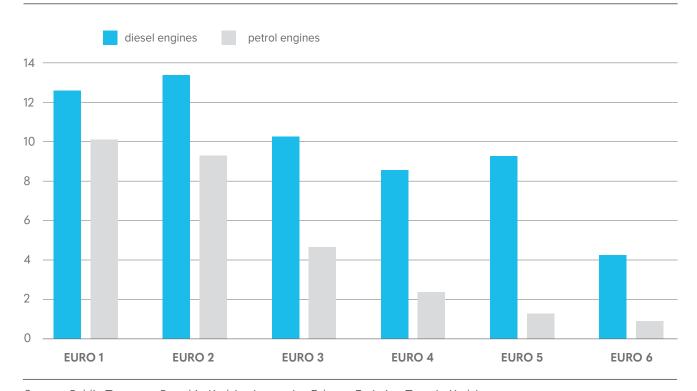
Over the past 15 years, transport emissions have increased, which testifies to a lack or ineffectiveness of policy and strategy in the area of transport pollution. The **number of vehicles** per 1 000 inhabitants in Warsaw, Poznań, Wrocław, Kraków and the Sileasian agglomeration has increased by 30-40% over the past 10 years. According to the Supreme Audit Office (NIK), in the Warsaw and Kraków agglomerations cars account for 75% of nitrogen dioxide emissions.

>> LOW EMISSION TRANSPORT ZONES

The existing Low Emission Transport Zones (LEZ) regulations are plagued with a range of serious defects, which prevent LEZs from being a tool to improve air quality in cities and towns. They create a situation in which local authorities cannot impose traffic restrictions only on cars which pollute the most. Another flaw of the existing LEZ regulations is that they apply only to cities and agglomerations with over 100 thousand inhabitants. As a result, this tool cannot be used by, for example, tourist resorts, where air quality is particularly important. An equally important aspect is the exclusion of LEZ inhabitants from the zone's regime, which means that the requirements do not apply to a majority of the automobile traffic.

FIGURE 1

REAL PARTICULATE MATTER EMISSIONS FROM PETROL AND DIESEL VEHICLES, FOR THE INDIVIDUAL EURO STANDARDS [G/KG]



Source: Public Transport Board in Kraków, Innovative Exhaust Emission Tests in Kraków

For LEZs to become an effective tool to reduce traffic emissions in towns and cities, a number of changes to the law are necessary. The vehicle-specific requirements should be **linked to the EURO exhaust emissions standards**. LEZ created by municipalities should cover **all automobiles travelling in the zone**, and there should be an option to create zones over the entire area of the city, and not just the city centre.



INADEQUATE PROGRESS. Legal amendments to reform the Low Emission Transport Zone legislation have been drafted but have not yet been forwarded to the parliamentary process.

>> CAR IMPORTS

In 2020, almost **850 thousand automobiles were imported into Poland**, with the **average age of 12 years**. Inhabitants of Germany, Belgium or France have started to sell their older cars, especially diesel engine models, one reason being that such vehicles are not allowed to enter many cities in these countries (Low Emission Transport Zones). As a result, these cars flow into Poland. At present, old diesel engine vehicles are the largest source of NO2 in the air. Regrettably, the existing excise tax regime does not discourage buyers from purchasing cars emitting the most – the tax rate depends only on engine capacity, and not on emissions volume.

To reduce emissions from old automobiles, a system-based solution should be created to introduce a **higher excise tax on imports of cars older than ten years**, with a special emphasis on **diesel engine models**. The excise tax rates should be structured so as to encourage imports of vehicles which produce less harmful emissions.



>> VEHICLE TECHNICAL INSPECTIONS (MOT)

For years now, there has been an ongoing harmful practice in Poland of removal of diesel particulate filters (DPF). Advertisements of the DPF removal service are ubiquitous – they are easy to find on the Internet or on roadside banners. Regrettably, under the existing law, these services are not prohibited. Furthermore, diagnostic stations which should detect removal of a DPF filter do not command adequate equipment to be able to ascertain the illegal modification beyond any doubt. If the malpractice is detected, the penalty is a fine of PLN 500 – an expense much lower than a DPF replacement.

The law should impose **sanctions for illegal modifications** of vehicles (removal and deactivation of DPF filters) and increase fines for driving such vehicles. Furthermore, **new principles of automobile MOT inspections** should be introduced, so that the exhaust emission tests are recorded and the standards to be met by a given car are matched with the standards in force in its year of manufacture.



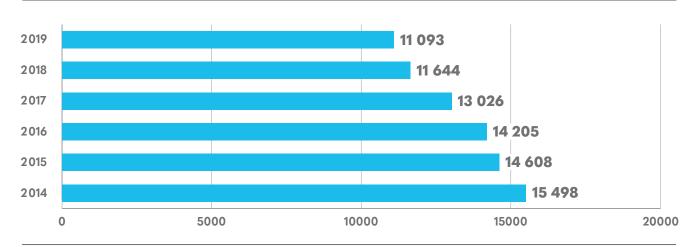
INADEQUATE PROGRESS. No work has been undertaken to create a comprehensive detection system for DPF removal. Only incidental campaigns to check automobile emission levels are conducted by the police.

>> PUBLIC TRANSPORT

Every day, hundreds of thousands of cars enter the largest cities in Poland – 500 thousand in Warsaw, 240 thousand in Wrocław, 170 thousand in Poznań, and 160 thousand in Kraków. These numbers could be reduced if a convenient alternative to car use was available. At present, people frequently are forced to go by car, because there is no mass transport available where they live, or the timetables are too infrequent to allow them to commute to work conveniently. An important factor for the development of public transport is the creation of the so-called PEKAES fund, with the purpose of subsidising mass transport connections started by municipalities or counties. However, few local authorities employ officials who know how to organise public transport without any external assistance, which may be a major obstacle for local governments to create a network of public transport connections. The development of public transport is very important, because the distance of still operated bus routes has been continuously going down.

FIGURE 2

NUMBER OF BUS ROUTES IN POLAND OPERATED IN 2014-2019



Source: Local Data Bank of the Office for National Statistics (GUS)

Increasing the attractiveness of mass transport, translating into a reduction of the number of automobiles in city streets and improvement of air quality, calls for **amendments to the public transport act**. The amendments should specify a timeline for the mandatory announcement and resolution of transport service procurement orders. Counties should have a duty to organise public transport in their respective areas. A public transport services plan for county towns and larger transport hubs should be developed by provincial authorities. Counties and municipalities should have access to advisory teams that would assist in the restoration or creation of public mass transport networks.



INADEQUATE PROGRESS. The required reforms have not been carried out. The National Recovery Plan predicates specific changes to improve the condition of public transport; the subsidies for public transport connections have been increased under the so-called PEKAES fund.

INDUSTRY

>> SPATIAL MANAGEMENT

The primary cause of many problems arising in respect of industrial facilities is spatial chaos. According to the data for 2019, only **31.2% of the country's area was covered by a local zoning (use of land) plan**. In other words, at present planning for almost 70% of Poland is subject only to an administrative decision of a planning permit. The spatial chaos has negative impact on air quality, not only due to improper locations of industrial facilities, but also due to uncontrolled developments in ventilation channels or negative influence on road traffic in cities.

Effective spatial management, resulting in lower impacts of industrial plants on air quality, calls for the resumption of legislative work on the Urban and Construction Code. The stand-alone planning permit decisions should be discontinued or linked to the Local Development Frameworks. Local zoning plans must be mandatory and serve as an exclusive basis of any decisions in respect of locations of industrial facilities.

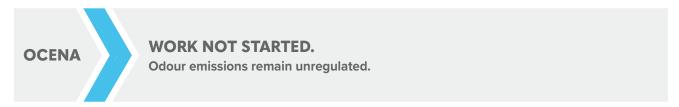


INADEQUATE PROGRESS. A comprehensive reform of the spatial management legislation has been developed, but it has been abandoned. In April 2021, plans of a new reform were announced, however the draft regulations are to reach the parliament only in 2022.

>> ODOUR IMPACTS

Odour emissions produced by industrial plants are a source of a multitude of conflicts. Although the act calling for enactment of a regulation on odour impacts was adopted over 15 years ago, no such regulation has been adopted so far.

Odour impacts can be lowered if a **comprehensive regulation is developed and adopted on odour air quality standards**, measurement methodology and obligation to include odour impacts as an aspect of all decisions in respect of existing and planned industrial facilities.



AIR QUALITY STANDARDS AND EMISSION STANDARDS

In Polish law, emission standards for industrial plants have been defined relatively narrowly. They apply mainly to the primary groups of pollutants: particulate matter, NOx, sulphur dioxide and carbon oxide. For other substances, emission standards are only set selectively.

The catalogue of mandatory emission standards should be expanded, to include harmful or onerous substances. The standards should apply to the broadest possible range of industrial installations and processes. Finally, the existing emission standards should be gradually tightened.



MODERATE PROGRESS. Emissions from large industrial installations subject to the integrated permit requirements are regulated comprehensively on the EU level under the BAT Conclusions. However, the existing regulations in respect of medium and small installations must be modified.

>> EXCLUSION OF THE PUBLIC FROM PARTICIPATION IN ENVIRONMENTAL PROCEEDINGS

The environment protection law stipulates many rules and obligations related to the operation of industrial facilities and processes which must be considered in an emission permit decision-making procedure. Regrettably, almost always the sole party to these proceedings is the investor - so there is no other entity that could demand application of these rules in practice or imposition of more ambitious clean air targets in the permit.

Social conflicts and emission exceedances can only be avoided if representatives of local communities and ecological organisations are allowed to participate in emission permit decision-making proceedings.



INADEQUATE PROGRESS. Participation of the public in environmental proceedings has been somewhat broadened by the amendment which came into force on 13 May 2021, however the modifications do not apply to emission permit decision-making proceedings.

>> ENVIRONMENTAL PROTECTION INSPECTORATE AND OTHER INSPECTION AUTHORITIES

In recent years, the scope of powers of the Environmental Protection Inspectorate has been broadened. However, human and financial resources remain a problem, as there are too few auditors with long-standing experience and solid interdisciplinary knowledge. In practice, even if grave irregularities are reported, the ensuing audits are pre-announced, allowing the auditee time to prepare (e.g. by temporarily changing the production process).

Effective inspection function calls for a much stronger role of the Environmental Protection Inspectorate as an enforcement authority competent to prosecute crimes against the environment. The number of unannounced ad hoc audits should be significantly increased in respect of industrial plants responsible for emissions of harmful and onerous pollution into the air.



INADEQUATE PROGRESS. The scope of powers of the Environmental Protection Inspectorate (IOŚ) has been significantly broadened, however due to insufficient human and organisational resources, the scope of audits is too narrow. The inspection powers of local authorities should also be defined more precisely, so that these authorities can take over some of the inspection load of the IOŚ.

>> CRIMINAL LIABILITY

In a clear majority of crimes and offences associated with environmental impact, it is not possible to identify the aggrieved party. In 2019, only 134 proceedings regarding the crime of polluting the environment (Article 182 of the criminal code) were initiated, and only 29 crimes had been confirmed and as few as 14 – detected. Furthermore, even if a crime is detected, the penalty stipulated by law for crimes against environmental protection is lenient. Even profoundly serious malpractice, such as conducting operation without a mandatory legal permit, is still considered a minor offence only.

Effective prosecution of crimes and offences related to environmental impacts requires that the **legal qualification** of some punishable acts be changed from offence to crime. Furthermore, ecological organisations should be granted the rights of the aggrieved party in cases involving crimes and offences against the environment.



INADEQUATE PROGRESS. The scope of powers of the Environmental Protection Inspectorate as a law enforcement body in respect of crimes against the environment has been somewhat broadened, however no work is underway to amend the remaining relevant regulations.

KEY RECOMMENDATIONS

LOW-STACK EMISSION

- >>> **PROVINCES:** Conducting an intensive information campaign regarding the requirements of anti-smog resolutions and the obligation to replace unclassed boilers, the so-called "smokies".
- >> PROVINCES: Adoption of effective air quality plans, which will impose specific requirements on municipalities in the field of air protection.
- >> THE NATIONAL FUND FOR ENVIRONMENTAL PROTECTION: Continuation of The Clean Air Programme reform: support should be provided for the most impoverished households.
- >> THE NATIONAL FUND FOR ENVIRONMENTAL PROTECTION: Launching a programme in support of replacement of coal- and wood-fired heating appliances in multi-family residential buildings addressed to private apartment owners.
- >> GOVERNMENT: Discontinued of support for coal-fired boilers in the Thermo-Modernisation Tax Allowance.
- **SOVERNMENT:** Adoption of higher quality standards for coal and establish mandatory quality standards for pellets.
- **>> GOVERNMENT:** Creation and implementation of a system of regular inspections of household boilers and stoves.
- CENTRAL OFFICE OF BUILDING CONTROL: Implementation Central Register of Emission Intensity of Buildings and effective compiling it with the data by the end of June 2022.

TRANSPORT

- **SOVERNMENT:** Reform of the Low Emission Transport Zone legislation to limit the traffic of the most polluting cars by local governments.
- **>> GOVERNMENT:** Changes in the excise tax on imported cars in order to make the fee dependent on the amount of pollution emitted by a given car.
- **>> GOVERNMENT:** Introducing a sanctions for garages removing DPF filters and for driving such vehicles, change in the scope of the annual exhaust emissions test.
- >> GOVERNMENT: Improving public transport outside agglomerations.

INDUSTRY

- >>> PROVINCES: Adoption of local zoning (use of land) plans and designation of industrial zones based on them.
- >> GOVERNMENT: Development and adoption of a comprehensive regulation on odour air quality standards.
- >> GOVERNMENT: Expand of the catalogue of mandatory emission standards for industrial installations.
- **>> GOVERNMENT:** Allow participation of the public and ecological organisations in emission permit decision making proceedings.
- **SOVERNMENT:** Changes the legal qualification of some punishable acts from offence to crime and grant the rights of the aggrieved party to ecological organisations in cases involving crimes and offences against the environment.
- >> THE CHIEF INSPECTORATE OF ENVIRONMENTAL PROTECTION: Increase the number of unannounced ad hoc audits in industrial plants, reform of Inspection towards more effective detection of crimes against the environment.



EUROPEAN CLEAN AIR CENTRE (ECAC) is a think-tank organisation pursuing the mission of supporting comprehensive system-based improvement in air quality by development of knowledge-based solutions. It cooperates both with community organisations as well as decision-makers. ECAC founders have long-standing experience in advising international, national and local institutions in the area of air quality, with a special focus on the impact on health, environmental regulations and finance, as well as social aspects.



POLISH SMOG ALERT (PAS) is a grass-root anti-smog movement bringing together local citizen initiatives active in support of air quality improvement locally and nationwide. It was established in 2015 and since then it has been trying to stimulate anti-smog activities at the government and local government level, cooperating with decision-makers, scientists and representatives of civil society. At present, PAS brings together hundreds of people pursuing its mission across the entire Poland. We try to raise the awareness of inhabitants and politicians that change is urgently needed. The objective of Polish Smog Alert is to improve air quality so that it is not a hazard to human health or life in Poland.



FRANK BOLD FOUNDATION is a nongovernmental organisation focusing on the protection of human rights, the right to clean environment and respect for the democratic rule of law. One area of the Foundation's activities is air quality – Frank Bold provides legal aid to citizens fighting for clean air, organises training for local authorities in the area of environment protection laws and advises government administration bodies on legislative solutions for clean air.