

CLIMATE CHANGE, ENERGY AND ENVIRONMENT

COOPAIRATION

Air quality and the EU integration process
of Serbia and Kosovo

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Air pollution is a challenge at the European, as well as at the regional level in the Western Balkans. Situation with air quality is very similar in Serbia and Kosovo.



Both Serbia and Kosovo are facing high levels of air pollution, particularly in urban areas.



The EU integration process of both sides is a good opportunity for improving air quality, public health and citizens' quality of life through implementation of the EU acquis.

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Abstract

Serbia and Kosovo are facing the same challenges on their road towards the EU, although they are each heading towards EU membership at a different pace. Regarding Serbia, accession negotiations were officially opened in January 2014. On the other hand, the Stabilisation and Accession Treaty between Kosovo and the EU entered into force in April 2016. The normalisation of relations between Serbia and Kosovo, under EU-facilitated dialogue, is a vital part of the EU accession path for both sides. However, it is a process burdened by daily high-level politics. While the dialogue currently remains in the spotlight from both the international and domestic public, other aspects of EU integration offer more room for cooperation.

Air pollution has proven to be a massive problem and a shared challenge at the regional level. The challenges regarding air quality in both Serbia and Kosovo can be summarised in their heavy dependence on fossil fuels, both for energy production and household heating, significant pollution in urban areas, as well as a lack of data and information on the quality of air. The problem of air quality has also been emphasised within the context of the EU integration of Serbia and Kosovo. Although the pace of the EU integration of Serbia and Kosovo is different, the challenges they are facing in this context are very similar. These are the topics that, despite the urgency and scope of the issue, are not high enough on the agenda, either of that of the decision makers, or of the public.

The aim of this paper is to provide an overview of the air quality in Serbia and Kosovo, underline key challenges and provide recommendations for the improvement of air quality in Serbia and Kosovo, as well as to present air quality as a shared challenge within the EU integration context.

1

EU AND AIR QUALITY

The EU's long-term objective is to achieve levels of air quality that do not result in unacceptable impacts on, or risks to human health and the environment. The EU is tackling the issue of air pollution through different levels and instruments: through legislation; cooperation with sectors responsible for air pollution, as well as international, national and regional authorities and non-governmental organisations and research. EU policies aim to reduce exposure to air pollution by reducing emissions and setting limits and target values for air quality¹.

In 2013, the European Commission adopted a proposed Clean Air Quality Package including new measures to reduce air pollution. By 2030, it is estimated that, as opposed to the current situation, measures under the clean air package will:

- avoid 58,000 premature deaths
- save 123,000km² of ecosystems from nitrogen pollution
- save 56,000km² of protected Natura 2000 areas
- save 19,000km² of forest ecosystems from acidification²

European Union policy on air quality aims to develop and implement appropriate instruments to improve air quality. The central piece of EU legislation on air quality is the Ambient Air Quality Directive, adopted as 2008/50/EC, which represents consolidated Air Quality Framework Directive 96/62/EC and its daughter Directives, which established standards for a range of pollutants including ozone, particulate matter (PM₁₀) and nitrogen dioxide (NO₂), in the period up to 2004. Together with the fourth daughter Directive 2004/107/EC, the Ambient Air Quality Directive provides the current framework for the control of ambient concentrations of air pollution in the EU.

Member States are obliged to divide their territories into a number of zones and agglomerations. In these zones and agglomerations, the Member States should undertake assessments of air pollution levels using measurements, modelling and other empirical techniques and report air quality data to the European Commission accordingly. Where levels are above limit or target values, Member States should prepare an air quality plan or programme to address the sources

responsible and so ensure compliance with the limit value before the date when this value formally enters into force. In addition, information on air quality should be disseminated to the public.³

1 <https://www.eea.europa.eu/themes/air/>

2 <https://www.consilium.europa.eu/en/policies/clean-air/>

3 <https://ec.europa.eu/environment/air/quality/index.htm>

2

SERBIA

AIR QUALITY WITHIN THE EU INTEGRATION PROCESS OF SERBIA

The accession of Serbia to the European Union is in the accession negotiations stage. The EU opened accession negotiations with Serbia on January 21st, 2014. So far, accession negotiations on Chapter 27 - Environment and Climate Change - which encompasses EU legislation on air quality, have not been opened. Bilateral and explanatory screenings for Chapter 27 were held in September 2014. Through the bilateral screening, Serbia stated that Directive 2008/50/EC on ambient air quality and cleaner air for Europe and the 4th Daughter Directive have been largely transposed through the provisions of the Law on Air Protection and several implementing acts. Furthermore, it was stated that "Serbia plans to transpose the remaining provisions for both directives by the end of 2018". Serbia also explained that the competent authorities in the field of air quality were in place - namely the line Ministry and Serbian Environmental Protection Agency, but that these institutions need more staff and funding for the necessary infrastructure and equipment to conduct proper air quality monitoring. At the time, 3 zones and 8 agglomerations were identified and an air quality monitoring system consisting of 36 stations was established. The following steps were listed as planned for the full implementation of air quality legislation: the adoption of three air quality plans, the redesignation of zones and agglomerations and the reassessment of the AQ Monitoring System, the development of an Air Protection Strategy and an Implementation Plan for the Air Quality Directive by 2018. Full implementation of both directives was planned to be achieved by the end of 2020.

The EU Commission's assessment regarding Serbia's progress with air quality underlined that Serbia had achieved a high level of legislative alignment with the Ambient Air Quality Directive. Expanding the networking monitoring system, ensuring substantial investments in laboratories, equipment and human resources to ensure effective implementation were recognised as extremely important. In addition, the EU Commission underlined that the adoption of an Air Quality Plan for Belgrade and the acceleration of air quality planning were primary necessary steps.

SERBIA'S PROGRESS IN EU ACCESSION AND AIR QUALITY – EU COMMISSION COUNTRY REPORT

The European Commission reports on Serbia's progress in the EU accession process through annual country reports. Since accession negotiations began and the screening report for Chapter 27 was carried out, recommendations from the European Commission for Serbia in the field of air quality have been very similar in subsequent years, underlining the rising level of air pollution in urban areas, the challenges regarding the monitoring of air quality and the implementation of policy instruments for addressing the issue of air quality.

The EU Commission's Country Report for Serbia was published in May 2019. The main findings in the field of air quality were focused on air quality monitoring and the adoption and implementation of policy documents in this area. The monitoring of air quality was regarded as "slightly improved, with 36 stations operational but the monitoring network needs to be considerably reinforced". The EU Commission underlined the key findings of Serbia's annual report on air quality, showing that many cities have experienced air pollution above the limits: Belgrade, Subotica, Niš, Pancevo, Užice, Valjevo, Kraljevo and Kragujevac. Furthermore, it was recognised that air quality management plans were not in place for these cities, except for Pancevo and Belgrade, with several more plans being approved⁴.

In its Resolution on the 2018 EU Commission Country Report for Serbia, the European Parliament "expresses its deep concern at the alarming level of air pollution in Serbia " and "calls, in this regard, on the Serbian authorities to adopt the necessary short-term measures to tackle this situation and to reform effectively in the medium and long-term transport and mobility policies in the big cities⁵".

According to Serbia's National Program for the Adoption of the EU Acquis – NPAA - and reports on the implementation of the NPAA, Serbia is lagging behind with the adoption of a legal framework for the transposition of Directive 2008/50/EC, namely with the amendments to the Law on Air Protection and the Rulebook for the Content of Air Quality Plans⁶.

4 <https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20190529-serbia-report.pdf>

5 http://www.europarl.europa.eu/doceo/document/TA-8-2018-0478_EN.pdf?redirect

6 http://www.mei.gov.rs/upload/documents/nacionalna_dokumenta/

SERBIAN LEGISLATION WHICH TRANSPOSES DIRECTIVE 2008/50/EC

Provisions of Directive 2008/50/EC have been transposed into Serbian legislation through four key legislative documents:

- Law on Air Protection (Official Gazette of the RS no. 36/09 and 10/13)
- Regulation on Conditions for monitoring and air quality requirements (Official Gazette of the RS no. 11/10, 75/10 and 63/13)
- Rulebook on the Content of Air Quality Plans (Official Gazette of the RS no. 21/10)
- Rulebook on the Content of Short-Term Action Plans (Official Gazette of the RS, no. 65/10).

Through this legislation, key objectives, roles and responsibilities, policy instruments and limits for key air pollutants were established. According to the Law on Air protection, air protection in Serbia is achieved through:

- The establishment, maintenance and improvement of a unified air quality management system within the territory of the Republic of Serbia;
- preserving and improving air quality through the establishment and implementation of protection measures to prevent or reduce harmful effects on human health and/or the environment;
- avoiding, preventing and reducing pollution affecting ozone depletion and climate change;
- monitoring, obtaining and evaluating appropriate air quality data based on measurements and standardised methods;
- ensuring the availability of air quality data;
- undertaking obligations in accordance with confirmed international treaties;
- international cooperation in the field of protection and improvement of air quality and ensuring the availability of such data to the public⁷.

Key policy instruments in the area of ambient air quality are:

- A National Air Protection Strategy
- Air Quality Plans
- Short-term Action Plans
- A National Emission Reduction Plan
- Operators' plans for emission reduction from stationary plants.

Air pollution levels are monitored by measuring concentrations of sulphur dioxide, nitrogen dioxide and nitrogen oxides, suspended particles (PM10, PM2.5), lead, benzene, carbon monoxide, ground-level ozone, arsenic, cadmium, mercury, nickel and benzo(a)pyrene. The regulation on conditions for monitoring and air quality requirements sets out the limit values for air pollutant levels; air quality assessment

limits; tolerance and tolerance limits; concentrations hazardous to human health and concentrations reported to the public; critical levels of pollutants in the air; targets and (national) long-term targets for air pollutants; deadlines for reaching limit and/or target values⁸.

AIR QUALITY IN SERBIA – COMPETENT AUTHORITIES

The Ministry for the Environment is responsible for establishing a network for air quality monitoring (Programme for Air Quality Control in the state network), licensing entities for carrying out air quality monitoring, establishing zones and agglomerations, approving air quality plans and short-term action plans, cooperation with other states and the full implementation of the Law on Air Quality.

The Serbian Environmental Protection Agency is responsible for implementing requirements regarding air quality monitoring, air quality assessment, establishing, maintaining and operating a state network of automatic stations for air quality monitoring, including the procedures for ensuring quality and quality assessment for air quality monitoring, by coordinating programs for quality assurance, country-level reporting and according to the European Agency for environmental protection.

The Regional Secretariat of Vojvodina for Environment Protection is responsible for the monitoring of air quality within the local network and informing the public and peer organisations, as well as for the development of air quality plans and short-term action plans, together with undertaking measures for achieving target values.

Local Self-Governments are responsible for the monitoring of air quality in the local network, for informing the public and peer organisations, as well as for the implementation of air quality action plans and short-term action plans for achieving target values.

THE STATE OF AIR QUALITY IN SERBIA

According to the Air Quality Report, issued by the Serbian Environmental Protection Agency⁹, air was of **the third category - over-polluted air**, in **five agglomerations**: Beograd, Pancevo, Užice, Smederevo and Kosjeric, as well as in **5 cities**: Kragujevac, Kraljevo, Valjevo, Sremska Mitrovica and Subotica. The PM10 limit value of suspended particles was exceeded in all of the above cities and agglomerations. Furthermore, tolerance values for PM2.5 particles were exceeded in three agglomerations and two cities. Most of the days in which the daily limit values for PM10 were exceeded were during winter months. Monitoring of PM2.5 particles was carried out in 5 cities, all of which recorded concentration values that exceed the annual tolerant limit value for this pollutant (25,7 µg/m³).

npaa/npaa_2018_2021.pdf

7 Law on Air Protection (Official Gazette of RS, Nos. 36/09 and 10/13)

8 Regulation on Conditions for Monitoring and Air Quality Requirements (RS Official Gazette, Nos. 11/10, 75/10 and 63/13)

9 http://www.sepa.gov.rs/download/izv/Vazduh2018_final.pdf

According to an inventory provided by the Serbian Environmental Protection Agency, the most dominant sources of PM10 and PM2.5 particles were identified in the “remaining stationary combustion” category, which encompasses district heating plants with a capacity below 50 megawatts and individual households.

The main challenges regarding air quality policy in Serbia are related to the lack of a relevant policy instrument to address the issue and reliable monitoring of air pollution. A National Strategy for Air Quality has not been developed and adopted as yet. Air quality plans have not been adopted in all cities where the air quality is of the third category. In terms of air quality monitoring, the main challenge is the decreasing availability of valid hourly values from the state monitoring system, which decreased from 94% in 2011 to 48% in 2018. Local authorities do not present data on air quality in a manner that is transparent, accessible and understandable to the majority of citizens. Some of the cities that fall within the third category of air quality, such as Kragujevac, Kraljevo and Užice, do not have real-time measurements for PM10 and PM2.5.

According to the World Health Organisation (WHO), “exposure to air pollution, especially airborne particulate matter (PM), is associated with increased mortality and morbidity, particularly from cardiovascular and respiratory diseases”¹⁰. The WHO estimated that exposure to ambient air pollution accounted for 4.2 million premature deaths globally in 2016, including 0.5 million in the WHO European Region. Of this total, an estimated 6,592 deaths and 131,183 years of life lost (YLL) were due to air pollution in Serbia.

The following are some of the key findings of this report:

- Exposure to PM2.5 accounts for 3,585 premature deaths per year, including 1,796 in Belgrade.
- Over the next 10 years, 150,865 YLL due to air pollution are expected if current levels of air pollution persist. Of these, 75,261 YLL will occur in Belgrade¹¹.

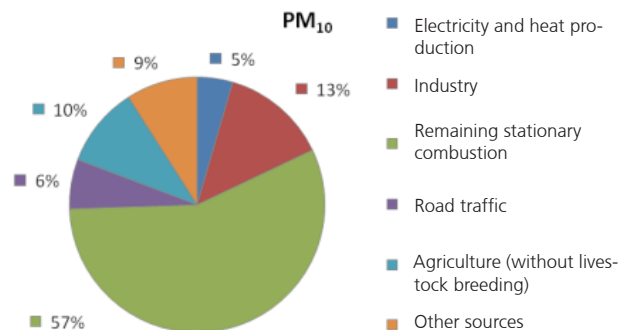
THE CASE OF BELGRADE

In the City of Belgrade, the average yearly concentration of PM10 particles (40 µg/m³) was exceeded in two places in Belgrade - Novi Beograd (50 µg/m³) and Obrenovac (42 µg/m³). The daily concentration of PM10 particles exceeded limit values in all stations. The number of days in which the daily limitation for concentration of PM10 particles was exceeded were: 132 days in Novi Beograd station; 77 days in Obrenovac station; 55 days in Stari Grad station; 33 days in Despota Stefana station. Measurements carried out in Beograd - Stari Grad station showed that the average annual concentration of PM 2.5 particles in this station amounted to 33 µg/m³, with 192,12 33 µg/m³ recorded as the highest daily concentration.

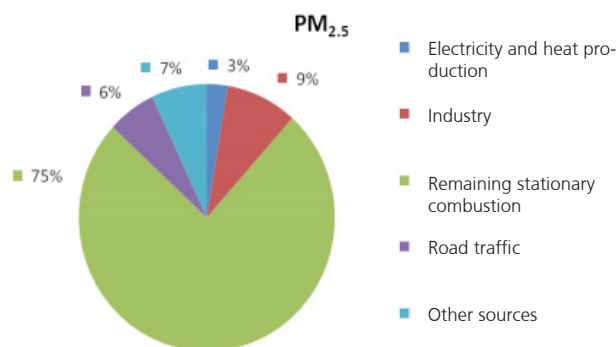
10 http://www.euro.who.int/__data/assets/pdf_file/0020/412742/Health-impact-pollution-Serbia.pdf?ua=1

11 *Ibid*

Serbia Infograph 1
Sources of PM10 particles per sector



Serbia Infograph 2
Sources of PM2.5 particles per sector



According to the Law on Air Protection, in zones and agglomerations where the air is of the third category, when the air pollution exceeds the effects of the measures taken, when the capacity of the environment is endangered or there is constant air pollution in a certain area, the competent authority of the autonomous province and the competent body of the local self-government are obliged to adopt an Air Quality Plan with the aim of achieving appropriate limit values or target values. The content of air quality plans is defined by the Rulebook on the Content of Air Quality Plans.

Since 2010, air quality in Belgrade has been of the third category – over-polluted in all years, except 2014, when it was of the second category - moderately polluted. In 2018, the daily limit values for PM10 particles were exceeded by more than 35 times within a year, which means that the City of Belgrade is obliged to adopt and implement a local Air Quality Plan.

An Air Quality Plan for the City of Belgrade was adopted in 2016. The plan contains the following elements:

- information on the area of increased pollution;
- basic information on the zone and agglomeration;
- information on the type and extent of pollution;
- information on the source of the pollution;
- analysis of the situation and factors that influenced the occurrence of the overdraft;
- details of measures or improvement projects that existed prior to the adoption of the Plan;

- details of measures implemented to reduce pollution within the Plan;
- details of measures and projects planned over the long term;
- authorities responsible for the development and implementation of the Plan;
- a list of documents, publications and similar supporting the information given in the Plan.

However, the Air Quality Plan does not contain some of the key elements required by the Rulebook, namely the data regarding air pollution sources, which should be presented in the following manner:

- a list of emission sources in the zone or agglomeration responsible for pollution;
- the total amount of emissions from these sources (in tonnes per year);
- data on the main sources of emissions from other regions and the total amount of emissions from those sources (in tonnes per year), if they are responsible for pollution, that is, if they affect the Plan
- area covered.

The inventory of air pollution sources for each pollutant is included in annual reports on the state of air quality, developed by the Serbian Environmental Protection Agency. However, these SEPA have not been listed among the reference documents for the development of the Air Quality Plan for the City of Belgrade, which means that the Plan was developed without reliance on the only official data which contains an inventory of pollutants. Without these data, it is impossible to formulate adequate policy measures and action steps to contribute to air pollution reduction. Central place in the Plan was given to the transport sector, namely the public transportation system, without sufficient data that would back this sector as the most dominant pollution source.

Furthermore, there has been no reporting on the implementation of the Action Plan, the measures within the Plan and the evaluation of the implementation. According to the Law on the Planning System (Official Gazette of the RS no.30/2018), analysis of the effects and evaluation of public policy impacts is mandatory and a consultative process with all stakeholders must be carried out both during development and implementation of the planning documents.

RECOMMENDATIONS

Transposition of EU Acquis - Serbia should complete the process of transposition of the EU acquis in the field of air quality, in accordance with the National Programme for Adoption of the EU Acquis – NPAA - and set out a new timeframe for the missing legislation, such as amendments to the Law on Air Protection and the Rulebook on the Content of Air Quality Plans;

Air Quality Strategy – The Ministry of Environment Protection should initiate development of an Air Quality Strategy as the key policy document at the national level in the field of air quality and ensure that the process is transparent and inclusive for all interested parties and stakeholders;

Air Quality Plans: All agglomerations and cities in which air quality is of the third category must adopt and implement Air Quality Plans. The process of development and implementation of Air Quality Plans should be carried out in such a way that they guarantee transparency and the participation of all interested parties. Plans should be carried out in accordance with the binding legal framework - The Rulebook for the Content of Air Quality Plans.

Monitoring of Air Quality and Availability of Data: The availability and quality of data on air quality should be improved. Sufficient financial resources should be allocated in order to ensure the work of the national air quality monitoring system in accordance with the standards. Local authorities should improve the quality and availability of the data from local air quality monitoring networks.

Utilising Energy Efficiency: Taking into account the fact that district heating plants with a capacity below 50 megawatts and individual households are the most dominant source of PM10 and PM 2.5 particles, the emission of air pollution from these sources should be addressed through improving energy efficiency.

Applying Higher Standards for Appliances: Utilising energy efficiency for addressing the air pollution problem can be implemented through enforcing stricter standards for household appliances, in line with the standards set out in Directive 2009/125/EC on ecodesign, which would directly address the usage of inefficient household appliances that heavily contribute to air pollution;

The National Energy Efficiency Fund: Energy efficiency should also be utilised through establishing financial support for energy efficiency projects through energy efficiency funds. The existing Energy Efficiency Fund at the national level can be used by local authorities for carrying out energy efficiency works in public buildings, such as renovating heating systems, change of fuel and improving energy efficiency all of which lead to a decrease in energy consumption;

Local Energy Efficiency Funds: Local self-governments can also establish Local Energy Efficiency Funds, which should be used to support energy efficiency works both in public buildings and private households - replacement of inefficient stoves and thermal insulation, which would directly decrease energy consumption and air pollution.

3

KOSOVO

AIR QUALITY WITHIN THE EU INTEGRATION PROCESS OF KOSOVO

Laws adopted to create a well-developed legislative framework in Kosovo, incorporating EU norms into the national legal framework:

The Law on Environmental Protection No. 03/L-025 aims to “promote the establishment of a healthy environment for the population of Kosovo by bringing gradually the standards for the environment of European Union”;

The Law on Air Protection No. 2004/30 recognises the need to harmonise environmental standards in Kosovo with those of the EU, in order to “regulate and guarantee the rights of citizens to live in a healthy and clean air environment, whilst protecting human health, fauna, flora and natural and cultural values of the environment” (Law on Air Protection from Pollution No. 03/L-16028);

Law No. 03/L-043 on integrated prevention pollution control aims to prevent or reduce emissions polluting the air, water and land. Both environmental impact assessment No. 03/L21430 and Law No. 03/L-02431 assess the effects of a project on the air;

The administrative instruction on limited values of air quality Nr. 02/2011, which aims to “define and establish an objective for environmental air quality designed to avoid, prevent or reduce harmful effects on human health and the environment”, established the Ministry of Environment and Spatial Planning as the competent authority for assessing air quality, and set the reference methods and criteria specified in EU Directive 2008/50/EC and 2004/107/EC;

Administrative instruction 15/2010 defines criteria for the implementation of the air quality monitoring system. Administrative instructions 21/2013 and 08/2016 define the allowed norms for discharge into air by polluters.

The Strategy on Air Quality 2013-2022 set the measures to be implemented over the next ten years: implementation of existing air legislation, reduction of emissions from individual sources, reduction of emissions from mobile sources, reduction of greenhouse gas emissions, and reduction emissions

from public activities. The air standards of Kosovo are thus the same as those of the European Union in the legislation, but the degree of implementation of the laws differs significantly, with Kosovo lagging behind in terms of implementation of and compliance with its own legislation.

KOSOVO’S PROGRESS IN EU ACCESSION AND AIR QUALITY – EU COMMISSION COUNTRY REPORT

According to the 2019 European Commission Report on Kosovo, air quality continues to pose a major threat to human health and efforts should be made in adopting measures to improve it, notably by enforcing the Emission Reduction Plan, which was adopted in 2018. Kosovo’s Strategy for Air Quality has not been enforced. An action plan for air quality and a law on air protection from pollution must be adopted. Uncontrolled pollution from the energy sector (particularly from the Kosovo B power plant and household heating) but also from industrial complexes, road traffic and the incineration of waste and other toxic materials remain a serious problem and have not been addressed. Air Quality Plans for zones in which pollutant levels visibly and significantly exceed limit values, especially in winter, have still not been prepared and adopted. An air quality monitoring system, with eight measuring stations providing real-time data to the public, is now operational. Urgent measures and permanent solutions are needed to reduce household reliance on lignite and wood heating.

AIR QUALITY IN KOSOVO – COMPETENT AUTHORITIES

Assembly of the Republic of Kosovo - The Assembly is the legislative body directly elected by the people. There are two important functions related to the environment namely: the Committee for Agriculture, Forestry, Rural Development, Environment and Spatial Planning and the Advisory Board on the Environment.

Government of Kosovo - The Government exercises executive power in accordance with the Constitution and the law. It proposes draft laws and amendments to existing laws and Acts, and may give its opinion on draft laws that are proposed by other bodies.

The Ministry of Environment and Spatial Planning - With the provisions of the Law on Environment Protection, the Law on Air Protection from Pollution and other relevant laws, the Ministry is responsible for the management of air quality over the entire territory of Kosovo. Specific bodies of the Ministry carry out specific tasks defined in the Law on Environmental Protection, the Law on Air Protection from Pollution and other legal Acts.

The Department of Environmental Protection (DEP) is one of the first departments created under the provisional institutions. The Activities of the Department of Environment Protection are carried out through four divisions: Division of Environmental Policy, Division of Environment Protection, Division for Nature Protection and Division for Waste Management and Chemicals.

The Kosovo Environmental Protection Agency – provides the required information for the administration, the Government and the Assembly of Kosovo for the implementation of environmental protection policies. It develops and coordinates the unique system of information on environmental protection relating to the tracking system of the environmental situation in Kosovo and collects environmental data;

The Hydro-meteorological Institute of Kosovo – builds and maintains a basic network of hydrological and meteorological stations and observes and measures elements and phenomena - hydrological, meteorological, bio and hydro-biological. It also observes and measures atmospheric electricity, air pollution and waterfalls and systematically monitors and assesses the state of air quality, atmospheric precipitation, surface and groundwater and soil, as well as conducting the study and forecasting of meteorological conditions.

Municipalities - The Municipalities adopt Local Environmental Action Plans (LEAPs) and programmes for environmental protection in line with the KES and NEAP and according to their own specific interests. In designing LEAPs and programmes, the public, NGOs, professional organisations and the business community are actively encouraged to participate. The Municipalities report to the Ministry on the implementation of these plans and programmes. To reduce the negative impacts upon the environment and in some cases to reduce costs, two or more Municipalities can jointly develop and adopt their plans and programmes.

THE STATE OF AIR QUALITY IN KOSOVO AND PRISTINA

Air pollution causes 9 million deaths in the world every year, which is equivalent to ¼ of total deaths. Globally, mortality due to air pollution reaches up to 120 deaths for every 100,000 inhabitants, while at the European level, it has reached 133 deaths for every 100,000 inhabitants. It is estimated that Kosovo saw up to 3,800 premature deaths until 2016 as a result of air pollution (European Environment Agency, 2019). Kosovo ranks first in the number of years of

life lost as a result of premature deaths.¹ The World Bank's Country Environmental Analysis (CEA) for Kosovo estimates that air pollution causes 852 premature deaths, 318 new cases of chronic bronchitis, 605 hospital admissions and 11,900 emergency visits each year. It is time that the institutions in Kosovo take this problem seriously.

According to the Ministry of Environment and Spatial Planning (2012), the following are considered as sources of air pollution in Kosovo:

- Thermal power plants (Kosovo A and Kosovo B)
- Lignite surface mining in Sibovc coal mine
- Industrial complex in Mitrovica
- Metalworking, non-metallic and chemical industry
- NewCo Ferronikeli nickel production plant in Drenas
- Sharrcem cement plant in Hani i Elezit
- Construction material industry, wood industry, paper industry, textile industry, leather-shoe industry, rubber industry, and food industry
- Graphic activity, stone quarries, asphalt production, road, rail and air transport
- Urban and industrial landfills, agricultural pollution and incineration (<60% of Kosovars receive waste collection services: 75% in urban areas and 41% in rural areas)

In the context of monitoring greenhouse gas emissions, Kosovo has so far prepared an inventory of greenhouse gases for the period 2008-2013. It is estimated that annual greenhouse gas emissions in Kosovo are approximately 9.5 million tonnes of CO₂ equivalent. The main source of greenhouse gases is the energy sector with a share of 88% of total emissions. The second sector is agriculture with 7%. The waste sector represents 3% of total emissions, while the industrial processes and products use sector accounts for 2.5%. The forestry and land use sector is the only greenhouse gas accumulation sector.

Air quality in the Kosovo Environmental Protection Agency's (KEPA) reports reflects the situation for the territory of Kosovo based on measurements from continuous air quality monitoring stations. The source of data mainly comprises monthly reports, which present data recorded from stations under the management of IHMK. Two of the stations located in Pristina are representative of the quality of air in an urban area (Rilindja) and suburban area (IHMK), while the other 6 stations located in Mitrovica, Drenas, Peja, Prizren, Hani i Elezit and Gjilan are representative of the quality of air in an urban area and the station located in Brezovica is for the rural area. Meanwhile, 3 industrial background stations are located in the KEK area (Dardhishte, Palaj and Obiliq).

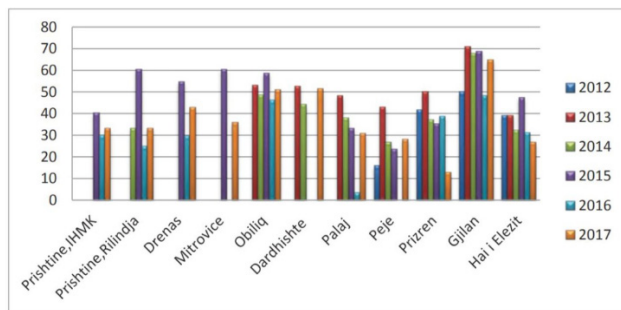
¹ Years of Life Lost (YLL) is determined as the possible years of life lost due to premature death. It is an evaluation of the average number of years that a person would have lived if he or she had not deceased prematurely. This takes into consideration the age at which the deaths occur and is greater for deaths at an earlier age and lower for deaths at an older age.

PM10 (Dust Particles) - During 2017, data on the PM10 concentration measurement show that the MAV exceeded the monthly and annual average. On the basis of exceeding the average monthly values, they are registered as follows:

- Obiliq and Dardhishte - 8 months
- Pristina - IHMK and Rilindje - 4 months
- Drenas and Mitrovica - 6 months
- Gjilan - 1 month

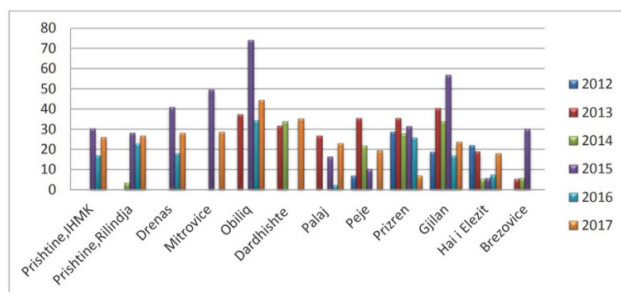
The MAV for PM10 is 40 µg/m³ (Annual Maximum Allowed Value) and 50 µg/m³ (Maximum Allowed Value for 24 Hours of Continuous Monitoring)

Kosovo Info graph 1
Trends for dust particle values - PM10



PM2.5 (Dust Particles) - During the period January-December 2017, there were significant excesses in the MAV for PM2.5 in Prishtina - IHMK and Rilindja (January, February, November and December), Drenas and Mitrovica (January, February and November) and Palaj (November). In the monitoring stations in Obiliq and Dardhishte, excesses were recorded in almost all months of the year. The MAV for PM2.5 is 25 µg/m³ as the Maximum Allowed Value for the annual average. This MAV is also taken as the MAV for the 24-hour average. The figures on the following graph show the average annual values and the maximum allowed values of PM2.5. The chart shows that the average annual values of PM2.5 recorded in Pristina-IHMK, Pristina-Rilindja, Drenas, Mitrovica, Obiliq and Dardhishte have exceeded the MAV.

Kosovo Info graph 2
Trends for dust particle values - PM 2.5



Despite the progress made in setting up a network for air quality monitoring, there is still a need to invest in the modernisation, completion and maintenance of this network and in particular for the functionality of the central data processing software and their real-time report. The data from the monitoring indicate, for some parameters, an excess of the

maximum allowed values, especially for PM10 and PM2.5, mainly during the winter season. Assessments show that the main sources of pollution are the energy, transportation and household sectors. However, a complete inventory of air emissions must be conducted together with a more detailed study on the distribution and concentration of pollutants. A low level of implementation of laws, bylaws and policies for the air sector has been identified, as is the case for policies for controlling emissions from mobile sources and of oil quality. There is also a low level of implementation of legal requirements at the local level. Even though the Law on Air Quality requires the drafting of Local Air Quality Action Plans, so far no municipality in Kosovo has drafted and approved such a document.

RECOMMENDATIONS

(1) Entities responsible at the central and local level should make sure that they have established a comprehensive and up-to-date legal framework, as well as efficient and sustainable monitoring and reporting mechanisms on air quality in Kosovo. Kosovo’s strategy for air quality should be enforced, the action plan for air quality and the law on air protection from pollution should be adopted, and air quality plans for zones in which pollutants levels visibly and widely exceed limit values, especially in winter, should be prepared and adopted.

(2) Implementing an excise tax of 20 Euro-cents per litre for diesel fuel. The burning of one litre of petrol emits 2.9 kilograms of CO₂, while the same amount of diesel emits 3.1 kilograms of CO₂. Kosovo imports around 500 million litres of fuel annually and as a result, the burning of these fuels produces around 1.5 million tonnes of CO₂ annually. Therefore, the implementation of an excise tax of 20 cents per litre would make diesel fuel more expensive and lessen demand given the environmental pollution conditions of using it.

(3) Reforming public transportation in Kosovo. Discouragement of the use of cars must be introduced by offering qualitative alternatives to transportation. This must include not only transportation within cities but also intercity transportation. A significant amount of the congestion in the capital city is caused by cars travelling in from other cities. Urban transportation needs to be reformed and improved so as to ensure travel to the main cities by organised public transportation while discouraging the usage of private cars. The Municipality of Pristina should urgently tackle the issue of bicycle lanes and pedestrian mobility as part of its Sustainable Urban Mobility Plan (SUMP).

(4) Removing excise and customs tax for new cars and those that fulfill higher standards such as Euro 6; Doubling the excise tax for older cars that do not meet Euro 6; No value-added tax for electric and hybrid cars; Incremental taxes for road usage tax and environmental tax according to the weight of the vehicle, type of engine and mileage history; and increasing the quality of fuel to improve the air quality in the country.

(5) Extending environmental zones across all cities in Kosovo where access by car is prohibited. Larger urban centres in Kosovo must have environmental zones in the city where access by car is prohibited. Additionally, this measure should be longer-term since not only would the environment be protected but also the pathway would be opened for the use of bicycles and the improvement of public transportation, both of which are economically sustainable.

(6) Dedicated ecological tax categorised according to environmental impact. The ecological tax is not treated as a dedicated tax. On registering a car, environmental protection is charged, however this portion goes to the total budget of the state which is then disbursed elsewhere. At the same time, this tax is charged according to categories. How is it possible that the same amount is charged for a car with 20,000 kilometres per year as one that has 8,000 kilometres per year? The categorisation of this tax must also include age, type of fuel used, engine and so on.

(7) Continuous and transparent monitoring of power plant filters. Citizens must be informed about and made aware in real time of the level of emissions from power plants, the status of industrial waste and the dangers of pollution during various periods throughout the year. Information on the level of emissions and on the work of the filters is essential in order to protect and rule out any suspicion that the filters are being turned off to ensure more production.

(8) Higher taxes for inefficient devices. The Government of Kosovo must undertake all measures necessary to ensure that energy-efficient devices are competitive with those that are not. This means that, apart from tax relief for payments for efficient devices, the contrary should be in place for those devices that are not efficient. In the Kosovar market, inefficient light bulbs must be eliminated! At the same time, a new, elevated tax scheme concerning electrical devices and their energy use is necessary.

(9) Functionalisation of the Energy Efficiency Fund which would promote efficiency measures and help citizens to invest in their houses. A large number of houses in Kosovo are equipped with inefficient devices where there is also a lack of proper thermal insulation. Where the Government has said there is a lack of data to support such a conclusion, the fact that this lack of data from Government sources exists is an issue in itself that needs to be addressed immediately.

(10) A five-year program prohibiting the use of coal for heating. The prohibition of coal as a heating fuel in industrial, residential and public buildings, as well as the establishment of other alternative solutions for heating, must be a medium-term priority of the Government of Kosovo. Only after the establishment and functionalisation of the Energy Efficiency Fund should the Government announce a five-year program banning every coal-sourced heating system in Kosovo. Combined measures of efficiency, central heating systems, the prohibition of the illegal extraction of coal and programs creating green jobs need to be coordinated in a manner that makes this five-year policy make sense.

LIST OF ABBREVIATIONS

CO ₂	Carbon dioxide
EU	European Union
DEP	Department of Environment Protection of Kosovo
IHMK	Hydro-meteorological Institute of Kosovo
LEAP	Local Environmental Action Plan
KEPA	Kosovo Environmental Protection Agency
KEK	Kosovo Energy Corporation
KES	Kosovo Environmental Strategy
MAV	Maximum allowed value
µg/m ³	Micrograms per cubic meter
NEAP	National Environmental Action Plan of Kosovo
NGO	Non-governmental organization
NPAA	National Program for the Adoption of the EU Acquis for Serbia
SEPA	Serbian Environmental Protection Agency
PM 10	Particulate matter with particles' size of 10 micrometres
PM 2.5	Particulate matter with particles' size of 2.5 micrometres
SUMP	Sustainable Urban Mobility Plan of Kosovo
WHO	World Health Organization
YYL	Years of life lost

REFERENCES

- Administrative Instruction on criteria for defining the air quality monitoring points, number and frequency of measurements, classification of pollutants which are monitored, the methodology of work, form and timing of data reporting of Kosovo; No.15/2010
- European Council and Council of the European Union: The Clean Air Package - <https://www.consilium.europa.eu/en/policies/clean-air/>
- European Environmental Agency: Air pollution - <https://www.eea.europa.eu/themes/air/>
- European Environmental Agency: Air quality in Europe 2019
- European Commission: Air quality - <https://ec.europa.eu/environment/air/quality/index.htm>
- European Commission: Kosovo 2019 Report - <https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20190529-kosovo-report.pdf>
- European Commission: Serbia 2019 Report - <https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20190529-serbia-report.pdf>
- European Commission: Screening Report Serbia: Chapter 27 – Environment - https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/screening_report_serbia_-_chapter_27_-_environment.pdf
- European Parliament: Resolution of 29 November 2018 on the 2018 Commission Report on Serbia- http://www.europarl.europa.eu/doceo/document/TA-8-2018-0478_EN.pdf?redirect
- Law on Air Protection of Serbia (Official Gazette of RS, Nos. 36/09 and 10/13)
- Law on Air Protection of Kosovo, No. 2004/30
- Law on Integrated Prevention Pollution Control of Kosovo, No. 03/L-043
- Kosovo Ministry of Environment and Spatial Planning – State of the Air Report - https://www.ammk-rks.net/repository/docs/raporti_i_ajrit__anglisht_18122012.pdf
- Kosovo Ministry of Environment and Spatial Planning: Report on the State of Environment 2017 - https://www.ammk-rks.net/repository/docs/Raporti_M_2017_english.pdf
- Kosovo Strategy on Air Quality - http://www.kryeministri-ks.net/repository/docs/Strategjia_per_cilesine_e_Ajrit_Dhjetor_2013__ang%5B1%5DF.PDF
- National Programme for the Adoption of the EU Acquis – Serbia - http://www.mei.gov.rs/upload/documents/nacionalna_dokumenta/npaa/third_revision_npaa_18.pdf
- Regulation on Conditions for monitoring and air quality requirements of Serbia (RS Official Gazette, Nos. 11/10, 75/10 and 63/13)
- Serbian Environment Protection Agency: State of air quality in Serbia in 2018 - http://www.sepa.gov.rs/download/izv/Vazduh2018_final.pdf
- World Health Organization – Health Impact of ambient air pollution in Serbia - http://www.euro.who.int/__data/assets/pdf_file/0020/412742/Health-impact-pollution-Serbia.pdf?ua=1

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COOPAIRATION

Air quality and the EU integration process of Serbia and Kosovo



The European Commission recognizes Serbia's and Kosovo's challenges regarding air quality. For Serbia, the latest EU Commission Country Report assessed the monitoring of air quality as "slightly improved" and highlighting that many cities have had air pollution above limits and also recognizing that air quality management plans were not in place for these cities. In the case of Kosovo, the European Commission is underlining lack of enforcement of the Air quality strategy, uncontrolled pollution from different sectors, as well as the lack of air quality plans for zones in which pollutant levels visibly exceed limit values.



World health organization estimated that in 2016, 6 592 deaths and 131 183 years of life lost (YLL) were due to air pollution in Serbia. Additional assessments regarding future trends were offered, stating that exposure to PM2.5 accounts for 3585 premature deaths per year and warning that over the next 10 years, 150 865 YLL due to air pollution are expected if current levels of air pollution persist. It is estimated that Kosovo had up to 3,800 premature deaths until 2016 as a result of air pollution. Assessment of World Bank states that air pollution causes 852 premature deaths, 318 new cases of chronic bronchitis, 605 hospital admissions and 11,900 emergency visits each year.



Annual reports of environment protection agencies of Serbia and Kosovo show alarming levels of air pollution, particularly in urban areas. For Serbia, air was of the third category - over-polluted air in five agglomerations and five cities, due to high concentrations of PM10 and PM 2.5 particles, most of which come from domestic heating and energy sector. In Kosovo, maximum allowed values for PM10 particles were exceeded in 7 out of 8 stations, both for PM10 and PM2.5 particles, with pollution mostly coming from energy, transportation and household sectors.

More information about this subject:

www.fes-serbia.org