



Work of the IBC Task Team on Air Pollution

Co-chaired by UNECE, UNEP, and WHO



Regional Workshop on Environment and Climate Change Issues in the Implementation of UNSDCFs

Issue-based Coalition on Environment and Climate Change

12-14 September 2023, Istanbul (Türkiye)

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TASK TEAM ON AIR POLLUTION

Together for warm homes and clean air

Joint action on air pollution from domestic heating in Serbia

Background

Domestic heating is a significant source of air pollution in Serbia as many households operate wood or coal fire stoves as the main source of heating. These do not emit large quantities of polluting substances, e.g. fine particles (PM_{2.5} and PM₁₀), including black carbon and volatile organic compounds (VOCs) resulting from incomplete combustion. A recent study by WHO on the health impact of air pollution in Serbia found that nearly 300,000 households every year are attributable to exposure to air pollution. Lower urban areas were found to be least heated. The situation is aggravated by the fact that energy poverty – a condition generally recognized to be the most significant determinant of health in Serbia – is widespread in Serbia and the Western Balkans. Major health and economic benefits can thus be reaped by improving air quality through energy efficiency measures, awareness raising, and air quality monitoring, among others.

Key facts about air pollution from domestic heating in Serbia

	8% of households in Serbia cannot keep their homes adequately warm.		There are regularly three or more than three times higher than legally prescribed levels of air pollution in urban areas, with a high number of days with severe exceedance in calendar year.
	More than one fourth (25%) are not capable of covering their bills for utility services on a regular basis.		300,000 households in Serbia do not have adequate insulation of their houses. An estimated 1 million households use inefficient coal-fired stoves for heating.
	There is a strong correlation between poverty and use of inefficient wood-burning stoves for heating.		Winter spend more at each time on households at risk, especially preparing meals. It can be assumed that they are more exposed to the effects of indoor air pollution.
	Serbia has recorded significant exceedance in air pollution by particulate matter, especially in the heating season.		

Together – a wealth of knowledge

At the request of the Resident Coordinator in Serbia, the task team on air pollution under the Issue Based Collaborative (IBC) on Environment and Climate Change engaged experts in building resilience on air pollution from domestic heating in Serbia in a workshop that included the Resident Coordinator, experts in addressing this issue, solutions and funding opportunities.

WHO

Air pollution from both outdoor and indoor sources represents the single largest environmental risk to health globally. Exposure to air pollution, especially by airborne particulate matter is associated with an increased mortality and morbidity, particularly cardiovascular and respiratory diseases. WHO estimates that exposure to ambient air pollution is estimated to be a million premature deaths globally in 2016, including 1.9 million in the WHO European Region.

This disease burden is preventable if air quality improves. Solutions to prevent air pollution and protect human health require multifaceted and multi-stakeholder cooperation. WHO focuses on bringing forward the health argument, through disseminating scientific evidence, such as through WHO air quality guidelines, development of methods and decision support tools, capacity building and advocacy.

Residential heating with wood and coal is an important source of ambient and indoor air pollution. Evidence links emissions from this source to serious health effects. WHO research on health and coal use in particular, which shows that wood use highlights the relevance of addressing this source in the global effort to tackle outdoor air pollution problem. A better understanding of the role of wood-burning heating as a major source of harmful outdoor air pollutants is needed, as well as better alignment between air pollution and climate policy and consideration of co-benefit for health and climate of reducing residential heating emissions.

In 2019, WHO published a report on the health impact of air pollution in Serbia, applying the WHO AirQ+ tool. The analysis based on the concentration of air pollutants measured in the network of automatic monitoring stations and national data on mortality showed that the overall health impact of air pollution for the urban areas in Serbia was estimated at 4,294 attributable deaths, including 12,967 premature deaths attributable to exposure to PM_{2.5} in urban areas. The report provided strategies for disease prevention and health promotion. Policies to reduce air pollution to target several sectors and sources, including access to affordable clean energy for cooking, heating and lighting in households.

Coherent multi-sector policies and actions are needed also in the context of future development plans in Serbia. The report provided better. Actions targeting transport, industry, power generation, agriculture, heating and land use, as well as efforts to test and implement air quality standards in line with WHO's Air Quality Guidelines are also among actions outlined in the WHO Manifesto for a health recovery from COVID-19.

UNECE

Children are particularly vulnerable to the effects of air pollution from domestic heating and data from UNECE's Multiple Indicator Cluster Survey (MICS) led to the only 22 percent of households in the general population 12 percent of households in Roma settlements primarily use clean fuels and technologies for cooking, space heating and lighting.

Children that are most impacted by indoor air pollution are those living in rural areas, those with lower economic status, children living in Southern and Eastern Serbia, and in Sandžak and Western Serbia, among others. Children younger than the age of 12, those with existing health conditions or disability and children living in Roma settlements are particularly vulnerable. Evidence shows that early life exposure to air pollution harms children's developing lungs, and contributes to higher risks of developing chronic diseases later in life.

To address the impact of air pollution on children, UNECE recommends that a child-right, and an equity-oriented approach to reducing pollution action in Serbia, including improved data, improved transport and public, and private sector, and digital data etc. Active participation of children and youth is also important for being in the child right issue that are the subject of air pollution hazards, and finding gaps for child sensitive action to mitigate air pollution need to be addressed.

UNDP

Air pollution exposure to geographic boundaries and is not a neighborhood environmental problem. It requires strategic measures, perceptions, and structural changes. In 2019, 6.5 million deaths were attributed to air pollution, making the fourth leading risk factor for death and disability worldwide. UNDP's Regional High supports these efforts by providing technical assistance and expertise to deliver an improved health and better air quality. A recently published report on "Cooking air pollution: a greater focus" outlines how to improve air pollution, climate resilience, and reduce household energy with a set of policy interventions for major economic activities like industry, transport, health, health care, as well as domestic household activities such as heating and cooking. The report also provides structural and concrete frameworks (e.g. the EU Green Deal, Paris Agreement) and UNDP's Climate Finance, 2020 Agenda for Sustainable Development and explores a set of measurement and assessment related to energy, climate, and air quality. The report also provides a set of UNDP's climate and air quality policy and implementation options for 19 country cases to frame air pollution prevention as part of COVID-19 recovery efforts.

Members: [UNECE](#), [UNEP](#), [WHO](#), [UNOPS](#), [UNDP](#), [UNICEF](#), and [WMO](#)

Past activities:

- Webinar on Air pollution from domestic heating in Serbia – impacts, challenges and solutions (held on on 26 May 2021 in response to a request from the Resident Coordinator in Serbia)
- Serbia follow-up through UNCT RG 1's subgroup on Air Pollution from Domestic Heating (created by RG1 as a direct follow-up of the IBC TT AP webinar) which has led to the development of a joint inter-agency strategy during 2021/2022, that is informing Joint Work Planning and coordination under the UNCT RG 1
- Outreach brief on lessons learned from the webinar and general offering of the Air Pollution Task Team, circulated to all UNRCs in the region in October 2022

UNEP

The Western Balkans region suffers from high levels of energy poverty, preventing a smooth transition to more sustainable heating systems through the replacement of the technologically outdated inefficient stoves. There are an environmental and health issue. According to the recent study on Air Pollution and Human Health, the cost of air pollution in the Western Balkans region contributes to 11-15% of total mortality and reduce life expectancy by up to 11-16 months in Western Balkans area.

As its first and most recent, the United Nations Environment Assembly adopted resolution UNEP/EA/RES/15/10 on 15 December 2021, which calls for governments to take action across sectors to reduce air quality. UNEP is currently supporting the development of a "wide air quality programme" with a view to addressing an integrated series of activities to government at different levels. Under this programme, UNEP works collaboratively with UN Environment and other partners in the Western Balkans to address urban air pollution challenges, through awareness, direct support to local actions at city level, and through advocacy and awareness raising including through the Southeast Europe Pollution Platform (SEPP).

UNECE

A code of good practice for wood burning and small combustion installations was developed under the UNECE Convention on Long-range Transboundary Air Pollution in guide Parties in applying best available technologies and good practice to their installations. While changing to better available combustion technology in the form of choice, the code also discusses behavioural measures regarding the selection of air quality fuels, combustion, maintaining the fire, moisture and impaction of domestic wood heating devices, as well as the need to significantly improve their energy use and efficiency and easy to implement. For example, the code includes the use of "top fire" ignition method. Awareness raising is key to the success of the code in behaviour.

WMO

WMO is committed to supporting air quality and health through enhanced observations, forecasts, warning, air quality services, capacity building and development.

Global Air Quality Warning Programme, led by World Meteorological Organization (WMO), provides vital scientific information for policy-makers, supports international commitment on transboundary ozone depletion and monitor climate change and long range transboundary air pollution.

UNEP DTU Partnership

UNEP DTU Partnership hosts the Copenhagen Centre on Energy Efficiency (CCE) that works to accelerate adoption of energy efficiency programmes of cities and countries. It has a technical unit dedicated to development of district energy solutions and its role is to provide technical support, particularly in feasibility studies and capacity building.

An initiative to make a major driver for energy-efficient heating deployment and building retrofitting, in close collaboration with UNEP and other partners, where CCE supported the development of the strategy for the city of Belgrade. The strategy is a key element of the city's climate action plan and was adopted by the City of Belgrade. CCE developed a pre-feasibility study on the strategy for the city of Belgrade. The study is a key element of the city's climate action plan and was adopted by the City of Belgrade. The study is a key element of the city's climate action plan and was adopted by the City of Belgrade.

UNOPS

UNOPS supports its partners through high quality project and financial management, procurement and infrastructure services to expand partner impact on the ground in line with government and international development agendas, including the SDGs. It works with the local government, and other partners, its sector neutrality and operational flexibility to support a wide range of projects and other partners. Its sector neutrality and operational flexibility to support a wide range of projects and other partners. Its sector neutrality and operational flexibility to support a wide range of projects and other partners.

UNOPS can support national and local energy efficiency and heating priorities through the integration of actions within ongoing projects led by EU (EU) and other partners. UNOPS can support national and local energy efficiency and heating priorities through the integration of actions within ongoing projects led by EU (EU) and other partners. UNOPS can support national and local energy efficiency and heating priorities through the integration of actions within ongoing projects led by EU (EU) and other partners.

Together in a joint programme

A thematic subgroup on air pollution from domestic heating was established under the UN Country Team Leads Group on Environment and Climate Change. The subgroup is the first of its kind to tackle a specific issue and aims to start discussions on a coherent joint programme, designed together to support the people and government of Serbia in tackling the most challenging of climate and air quality issues. The subgroup is the first of its kind to tackle a specific issue and aims to start discussions on a coherent joint programme, designed together to support the people and government of Serbia in tackling the most challenging of climate and air quality issues.





Thank you!

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