

Implementation of the national action plan for clean air in the framework of the UNECE Air Convention

INTRODUCTION

In Georgia, the major source of PM emissions is the residential heating. For NO_x emissions, transport and agriculture are the major sources. Although there has been a significant decrease in SO₂ emissions in recent years, industrial activities are a major source of SO_x emissions, such as iron and steel production. In 2019, the highest PM_{2.5} concentrations were observed in Georgia's most industrialized cities. Average annual NO₂ concentrations exceeded the annual limit value in Tbilisi and some other cities. Ambient air is monitored by 7 automatic and 1 manual stationary stations, an automatic mobile laboratory and short-term tube measurements in 25 municipalities.

The EU policy and regulations for assessment and management of air quality have been transposed into the domestic legislation. Georgia is improving its own permit and control systems of industrial sources and developing its legal framework to transpose the EU industrial emission directive (IED). A new Law on Industrial Emissions, similar to the EU IED is expected to be adopted. Draft by-laws on large combustion plants (LCPs), including BAT-based integrated permits, and on organic solvent uses, are being developed and implemented. Full implementation of the Industrial Emissions Law is expected by 2031.

Georgia has been a Party to the UNECE Air Convention since 1999 and acceded to the Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants (EMEP) in 2014. Since 2014, Georgia has participated in the Convention's capacity-building and awareness-raising programme to strengthen its capacity to implement the Convention. While Georgia has made progress in implementing the Convention, there are still gaps, specifically when it comes to ratifying the most recent protocols to the Convention, i.e. the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol), the Protocol on Heavy Metals and the Protocol on Persistent Organic Pollutants (POPs). To promote ratification of these protocols and build capacity for its implementation, a national action plan (NAP) was developed in 2018 under the Convention's assistance programme.

Since the development of the national action plan, Georgia has made progress in implementing actions on the way to ratification. As the provisions of the latest protocols to the Convention are mirrored in EU legislation, the implementation of the actions outlined in the NAP and subsequent ratification of the protocols can also help Georgia in fulfilling the EU air protection regulations¹ under the EU-Georgia Association Agreement, signed in 2014.

An overview of where Georgia stands in the implementation of the NAP is provided on the next pages.

¹ 2008/50/EC on ambient air quality and cleaner air for Europe; 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air; 1999/32/EC on Creating to a reduction in the sulphur content of certain liquid fuels and amending Directive 93/12/EEC; 94/63/EC on the control of VOC emissions resulting from the storage of petrol and its distribution from terminals to service stations as amended by Regulation (EC) 1882/2003; 2004/42/EC on the limitation of emissions of VOCs due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; 2010/75/EU on industrial emissions (integrated pollution prevention and control).

NATIONAL STRATEGIC DOCUMENTS

Action	Status ²	Current developments	Milestones foreseen	Obstacles/needs
Development, approval and implementation of national plans, programme and policy documents to reduce air pollution		<p>Draft national action plan (NAP) for ratification of the key protocols to the UNECE Air Convention</p> <p>Draft fourth National Environmental Action Programme of Georgia (NEAP-4) for the period 2022-2026.</p> <p>Approval of the air quality plan for Tbilisi</p> <p>Approval of the air quality plan for the city of Rustavi</p>	<p>Meetings of the Interagency Commission on Air Quality Improvement to review and transform the NAP into a formal national policy document (2022-2023)</p> <p>Submission of the policy document to the Government for approval (2023)</p> <p>Development and Implementation of air quality plans for zones and Tbilisi agglomeration</p>	<p>Obstacles: Lack of human resources, political will, and involvement of relevant agencies in the process</p> <p>Needs: An additional staff in the air division</p>

AIR QUALITY ASSESSMENT

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Introduction of air quality standards (Critical levels of O ₃ , PM, NH ₃ ; Critical loads of acidity and nutrient nitrogen; ambient concentrations and depositions of sulphur and nitrogen compounds; ambient concentrations of O ₃ , VOCs and PM; Estimation of exposure to O ₃ and PM)		<p>Harmonization of air protection legislation with EU regulations on air quality monitoring and assessment</p> <p>Ambient air monitoring through 7 stationary and 1 mobile station, and passive sampling campaigns in 25 municipalities</p> <p>Elaboration of air quality monitoring network development plan (Roadmap)</p> <p>Initial procedures for air monitoring data validation and verification</p> <p>Efforts to introduce an air quality modelling system and capacity building of national experts</p>	<p>Expansion of monitoring network by 8 stationary and 1 mobile stations (2023)</p> <p>Installation of new automatic stations and establishment of a national air quality reference laboratory (2023-2026)</p> <p>Classification of zones and agglomerations where pollutant levels exceed limit value/target value (2025)</p> <p>Development of air quality modelling system (2023-2026)</p>	<p>Obstacles: Lack of human resources to operate air quality monitoring network. Lack of capacity for assessment of critical loads/levels</p> <p>Needs: Building the capacity of staff responsible for maintaining the air quality monitoring network and processing the data</p>
Assessment (modelling and mapping) of critical loads and levels based on available data		-	-	<p>Obstacles: Lack of human resources and knowledge</p> <p>Needs: Human resources and skills in modelling and mapping</p>
Encouragement of development of research in the field of air quality (e.g. research on impacts of air pollution on human health)		<p>Launch of the project "Supporting the Implementation of Health Impact Assessment Practices in Georgia" to strengthen the legislative framework of the health impact assessment through harmonization with EU requirements</p>	<p>Draft policy and legal documents related to health impact assessment system (2022-2023)</p>	<p>Obstacles: lack of technical and financial capacity to conduct research on air pollution impact on human health and ecosystems</p>

² The state of the action, described by the emoticons:



Not sufficient



Partially sufficient



In progress



Generally sufficient

			Needs: Building the capacity of national institutions to conduct research on air pollution effects
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EMISSION INVENTORIES, EMISSION PROJECTIONS AND REPORTING

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Development of emission inventories		Improvement of quality and completeness of emission inventories and reporting to the Air Convention	Further development of emission inventories, including the transition from tier 1 emission estimation methods to higher tier methods (2022-2026)	Obstacles: Insufficient funds and human resources Needs: Assistance in recalculation of emissions with higher tier methods e.g. for key sources
Development of gridded emission inventories		Preparation of emission data for mapping in EMEP grid	Development and report gridded emissions to the Air Convention (2023)	Obstacles: Lack of human resources
Development of emission projections		Development and submission of emission projection report and estimates for 2020, 2025, and 2030 to the Air Convention	Further development and submission of emission projection (2024-2025)	Obstacles: Insufficient funds and human resources Needs: Assistance to develop emission projection and build capacity of national experts

NATIONAL EMISSION REDUCTION TARGETS

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Development and integration of national emission reduction targets in national legislation		Fourth National Environmental Action Programme (2022-2026) sets emission reduction targets for some pollutants from transport, energy and industry based on the projected emission Ongoing negotiation with the EU on further obligations within the EU-Georgia Association Agreement that includes the NEC Directive covering only emission inventory and projections	Finalization of negotiation with the EU and identification of specific requirements for the implementation of NEC Directive	Obstacles: Absence of international obligation based on which national legislation and emission reduction targets might be established Needs: Strengthen the cooperation between state agencies and at international level

EMISSION CONTROL MEASURES IN ENERGY AND INDUSTRIAL PRODUCTION

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Introduction of emission limit values (ELV) and best available techniques (BAT) based on integrated permit system		A draft law on industrial emissions, similar to the EU Industrial Emissions Directive (IED), introduces BAT based ELVs and integrated permits including establishment of legal framework for their enforcement	Adoption of a law on industrial emissions (2022) Approval of relevant bylaws (2023) Approval of national BAT regulation	Obstacles: Delay in adoption of the Law on Industrial Emissions due to lack of stakeholder involvement; lack of human capacity to properly implement

	Adoption of technical regulation on approval of the conditions for waste incineration and co-incineration, excluding wastewater and atmospheric emissions limit values (ELVs) for existing enterprises (2022)	Gradual entry into force of an integrated permitting system (2024-2026) Entry into force of ELVs for existing waste incineration and co-incineration plants (2026). Full implementation of the Law on Industrial Emissions and compliance with the technical annexes (IV, V, VI and X) of the Gothenburg Protocol (2031-2035)	the new legislation; private sector resistance due to high cost of investment. Needs: Financial and technical support to build institutional capacity for setting up and maintaining an integrated permit system. Strengthen cooperation with the private sector. Pilot projects to demonstrate the application of BAT.
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EMISSION CONTROL MEASURES IN TRANSPORT SECTOR

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Establishment of emission limit values (ELVs) for mobile sources		Ongoing development of regulation on the introduction of EU emission standards for vehicles Cost-benefit analysis (CBA) to determine the most reasonable vehicle emissions standard according to which to impose vehicle import restrictions	Approval of the Government Decree on the introduction of EU emission standards for vehicle (2022)	Obstacles: Delay in review and approval of the Decree due to lack of stakeholder participation. Needs: Cooperation with stakeholders; Establishment of efficient execution system

EMISSION REDUCTION MEASURES IN AGRICULTURE

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Development and enforcement of a Code of Good agricultural practice or equivalent to reduce ammonia		Voluntary Code on Good Agriculture Practice developed and published on electronic library of the Ministry of Environmental Protection and Agriculture		Obstacles: Lack of human and financial capacities to establish mandatory legal framework Needs: Support for an outreach campaign to promote best practices

PRODUCT CONTROL AND MANAGEMENT MEASURES

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Harmonisation of Fuel standards (motor fuel, heavy fuel oil and gas oil)		Amendments to the existing legislation to meet the EURO 5 standards for gasoline and diesel fuel	Enforcement of the requirements for diesel fuel complying with Euro 5 standard (2023) Full harmonization of existing petrol and diesel standards with	Obstacles: Lack of political will and involvement of relevant agencies to upgrade fuel standards to EUR 6; Risk of an increase in fuel prices

		<p>Adoption of a by-law on quality standards of heavy fuel oil and gas oil in line with the EU Directive 2016/802 (in force since 2021)</p> <p>Amendments to the regulation to establish a sampling system and appropriate analytical methods</p>	<p>Euro 5 parameters of EU Directive 2009/30/EC (2023)</p> <p>Approval of amendments to the by-law on quality standards of heavy fuel oil and gas oil (2022)</p>	<p>Needs: Cooperation between state agencies and the private sector</p>
<p>Control mercury content in alkaline manganese batteries and measures to manage other mercury-containing products (such as electric and electronic devices, medical equipment, luminescence lamps, pesticides, paints etc)</p>		<p>Adoption of waste management legislation covering aspects of mercury-containing waste management (classification, transportation, treatment, disposal, etc.) similar to the EU Waste Directive</p> <p>Adoption of a legal act regulating mercury content in batteries and accumulators (0.0005% of its total weight) and their waste management</p> <p>Consideration of ratification of Minamata Convention</p>	<p>Entry into force of relevant provision (mercury limitation) of the technical regulation on the waste management of batteries and accumulators (2027)</p>	<p>Obstacles: Delays in ratification and implementation of the Minamata Convention; lack of technical and administrative capacity to control the mercury content in products</p> <p>Needs: Financial and technical support, institutional capacity building, and establishment of a control system</p>
<p>Prohibition and restriction of the use of certain types of Persistent Organic Pollutants (POPs)</p>		<p>Government Decree on rule of import and export of certain hazardous chemicals and pesticides and implementation of prior informed consent procedure to ban import, export, production and use of POPs under the Stockholm Convention (2016)</p> <p>Establishment of special requirements for collection and treatment of hazardous waste by the Government Decree (2016)</p> <p>Adoption of the national implementation plan (NIP) on POPs for 2018-2022 (2018)</p> <p>Draft legislative package to establish additional requirements and regulations for polychlorinated biphenyls (PCBs)</p>	<p>Adoption of legislative package on PCBs (2022)</p> <p>Update of NIP on POPs for new time schedule and for inclusion of the newly added POPs (2023)</p>	<p>Obstacles: Delays in development and consideration of new policy and legal acts due to lack of human resources and involvement of stakeholders</p> <p>Needs: Financial, technical and expert support, institutional capacity building for POPs management</p>
<p>Regulatory control for VOC content in specific products</p>		<p>Draft Government Decrees to reduce VOC emissions from paints and varnishes as well as from petrol storage and distribution</p> <p>Measures to reduce VOC emissions from the waste products containing VOC</p>	<p>Approval of the Governmental Decrees on reduction of VOC emissions from paints and varnishes and petrol storage and distribution (2022)</p> <p>Adoption of by-laws on organic solvent uses (2022)</p>	<p>Obstacles: Delay in review, approval and entry into force of regulations due to lack of involvement and interest from stakeholders and insufficient human and financial resources</p> <p>Needs: Capacity building of relevant state bodies for the enforcement of new regulations on VOC</p>

OTHER MEASURES TO REDUCE EMISSIONS

Action	Status	Current developments	Milestones foreseen	Obstacles/needs
Improve energy efficiency (EF) and encourage use of renewable energy (RE) and less polluting fuels		<p>Exemption of small and micro power plants from the need to obtain a license for electricity generation</p> <p>Authorization for the owner of a micro power plant, including RE installations, to participate in the net-metering system</p> <p>Harmonization of national legislation with EU regulations:</p> <p>Adoption of the law on promoting the generation and consumption of energy from renewable sources (2019)</p> <p>Adoption of the Law on Energy Labelling (2019)</p> <p>Development of the law on Energy Efficiency (2020)</p> <p>Development of the Law on Energy Efficiency of Buildings and approval of its two by-laws (2020)</p> <p>Adoption of the first National Energy Efficiency Action Plan (NEEAP) for the period 2019- 2020, with indicative national energy efficiency targets for 2021, 2025, and 2030</p> <p>Development of the first Integrated National Energy and Climate Plan (NECP), aimed at achieving savings in primary energy consumption (15% target compared to BAU in 2030)</p>	<p>Transposition of Directive 2018/2001 in Georgian legislation (2022)</p> <p>Approval of 15 by-laws under the Law on Energy Labelling (2023)</p> <p>Approval of 8 by-laws under Law on Energy Efficiency of Buildings (near future)</p> <p>Approval of 19 by-laws under Law on Energy Efficiency (near future)</p> <p>Approval of 9 eco-design regulations (2023)</p> <p>Approval of the first Integrated National Energy and Climate Plan (NECP) (2022)</p>	<p>Obstacles: Lack of financial resources and investments to develop RE sources and implement EE measures</p> <p>Needs: Attract investments to develop RE sources and implement EE measures</p>
Measures for development of less polluting transport systems		<p>Introduction of a zero-taxation policy on imports of electric vehicles (EVs) and development of a charging network</p> <p>New tax policies to encourage the renewal of the existing car fleet, and stricter tax burdens for older and environmentally hazardous vehicles</p> <p>Setting a mandatory annual technical inspection for all types of vehicles (2018-2019)</p> <p>Renewal of the bus fleet with 680 Euro 5 and Euro 6 buses and 1,000 new minibuses in the capital (2017-2021)</p> <p>Arrangement of special bus lanes on 16 central streets of Tbilisi and renewal of the bus fleet in other cities</p>	<p>Further renovation of car and public transport fleet as well as improvement of green transport infrastructure (upcoming years)</p> <p>Further improvement of the existing tax system on imported vehicles to promote fleet renewal and avoid increasing imports of diesel vehicles</p>	<p>Obstacles: Lack of financial resources to further renovate car and public transport fleet improve green transport infrastructure; delay of existing taxation system reform</p> <p>Needs: Financial and technical support from international donor organisations to renovate stock and improve green transport infrastructure</p>

Develop economic, voluntary or regulatory measures for reduction of emissions

	<p>Adoption of a legislative package toughening the responsibility of industrial facilities that exceed ELVs and have no abatement equipment and obliging facilities with a high negative impact on the environment to install an automatic self-monitoring system for emissions</p>		
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INFORMATION DISSEMINATION

<i>Action</i>	<i>Status</i>	<i>Current developments</i>	<i>Milestones foreseen</i>	<i>Obstacles/needs</i>
<p>Provision of accessibility of information to the public</p>		<p>Development and maintenance of a web portal on air quality (air.gov.ge) to provide the public with near real-time information on air pollution levels, emission inventories, air quality management measures, programmes, and their implementation (since 2019)</p>	<p>Upgrade to data exchange platform RAVEN 2 (2022) Update of air quality portal (2023-2025).</p>	<p>Obstacles: Absence of an air quality data exchange platform RAVEN 2 at the national level, enabling the exchange of national data with the European Environment Agency Needs: Building capacity to test and use the upgraded RAVEN 2 to place Georgia's air quality data on the European Air Quality Index Map</p>
<p>Facilitation of technology exchange and availability of information on BAT</p>		<p>Requested support to the European Union on capacity building to facilitate information exchange on BAT</p>		<p>Obstacles: Absence of BAT conclusions, BREF documents and relevant information in national language Needs: Donor support to translate the EU BAT conclusions and to develop a national framework for information exchange on BAT</p>