



UNECE Convention on Long-range Transboundary Air Pollution

Joint Meeting of the EECCA Coordinating Group and the Task Force on Techno-Economic Issues (TFTEI)

Developments of Georgia in Ambient Air Quality Management

April 26, 2021

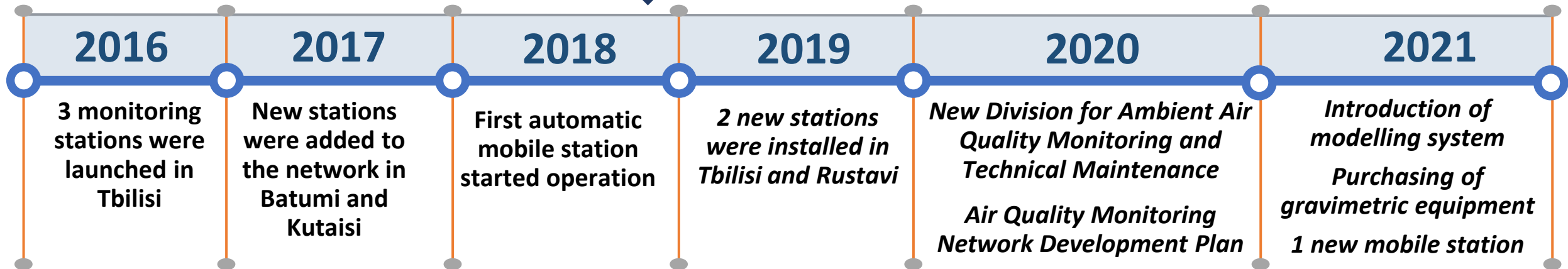
Presenter: Noe Megrelishvili

*Head of Ambient Air Division
Department of Environment and Climate Change
Ministry of Environmental Protection and
Agriculture of Georgia*

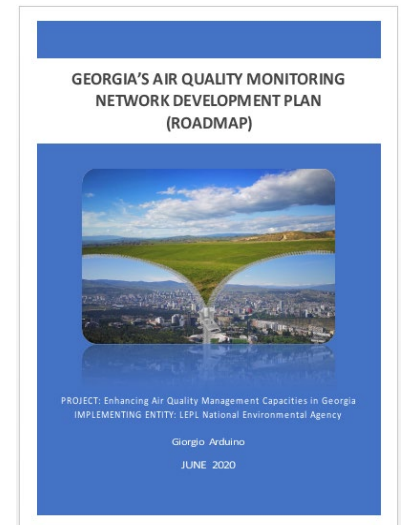
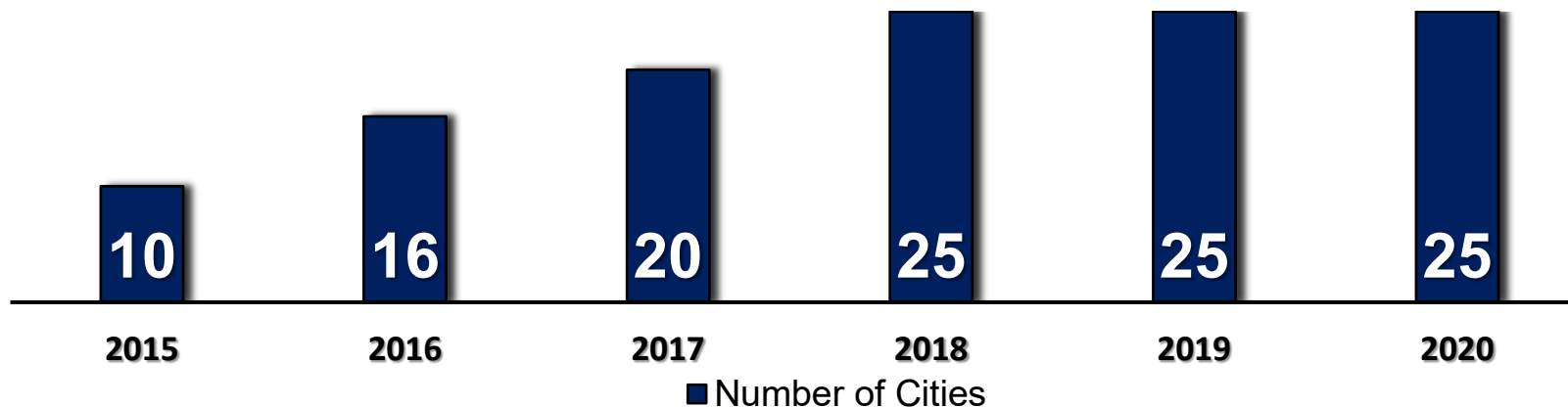


Ambient Air Quality Monitoring Network

8 automatic stations in the country including one mobile station



4-stage passive samplings in 25 cities



List of Monitored Substances

Automatic Stations	Passive Samplings	Planned (by gravimetric equipments)								
PM10, PM2.5 – Particulate Matters	NO ₂ – Nitrogen Dioxide	Pb – Lead Cd – Cadmium Ni – Nickel As - Arsenic								
NOx – Nitrogen Oxides	O ₃ - Ozone									
SO ₂ – Sulphur Dioxide	C ₆ H ₆ - Benzene	Benzo[a]pirene - BaP								
O ₃ - Ozone	Zones & Agglomerations	NOx	SOx	CO	O3	PM10 & PM2,5	Lead, HMet, BaP	BTX	Optim n° St.	
CO – Carbon Monoxide		Agglomeration of Tbilisi	5	3	4	3	5	5	2	6
MnO ₂ – Manganese Dioxide (non-automatic)		Black Sea Zone	5	3	3	5	5	5	1	5
		West Zone	4	1	2	3	4	3	1	4
		Central Zone	5	2	2	3	5	5	1	5
		East Zone	2	1	1	2	2	2	1	3
Pb – Lead (non-automatic)		High Zone	3	1	1	3	3	3	0	5
			24	11	13	19	24	23	6	28



Laboratory of the National Environmental Agency



სსიპ „აპრამიტაციის პრეზიდენტი პროფესიული ორგანო –
აპრამიტაციის ცენტრი“

აპრამიტაციის მოწოდება
EA BLA-ის ხელშეწყობით
GAC-TL-0259

ადასტურებს, რომ
სსიპ გარემოს ეროვნული სააგენტოს გარემოს დამაინჟინერების მონიტორინგის
დეპარტამენტის ატმოსფერული ჰერის, წყლისა და წინადავის ანალიზის
საგამოცდო ლაბორატორია
მდებარე: ქ. თბილისი, მარშალ გელანის გამზ. N6
შეუხადა და აკმაყოფილებს საქართველოს სტანდარტის
სსტ ისო/იკე 17025:2017/2018-ის მოთხოვნებს
აეროდინამიკის სფეროში მოცემულია აეროდინამიკის მოწოდების დანართი, რომელიც წარმოადგენს მის
განუყოფელ ნაწილს.

აეროდინამიკის ცენტრის
გენერალური დირექტორი

რეგისტრაციის თარიღი
14 აპრილი 2020 წ.
ძალაშია
17 ივლისი 2023 წ.

სსიპ GAC

0186 თბილისი, ალ. ყაზბეგის გამზ. N42ა



- Guidance for Maintenance of the Ambient Air Quality Monitoring Network was elaborated;
- Air quality monitoring related 21 international and EU standards were adapted;
- Air Monitoring Data Verification and Validation Procedure was prepared;
- Capacity development activities/trainings for the Department of Environmental Pollution Monitoring were conducted.



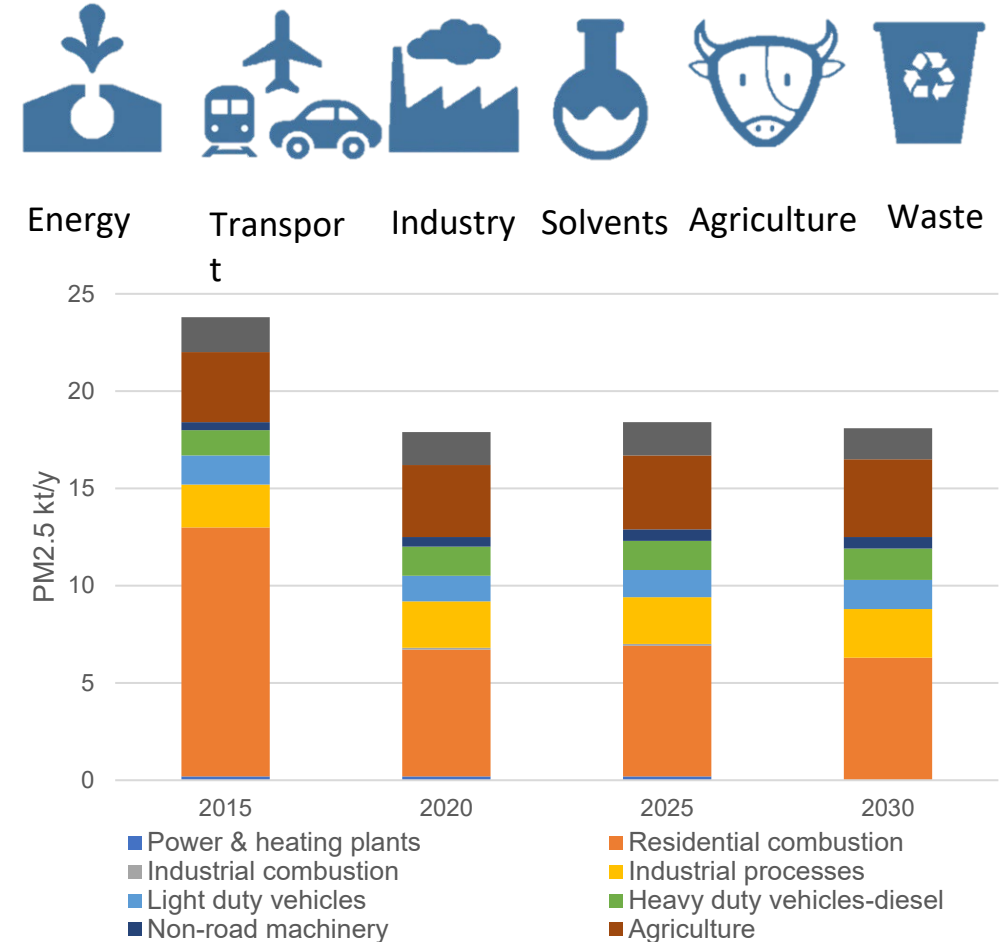
Improvement in Emission Inventory and Projection

Inventory

- Time period required by international obligations fully covered
- Data consistency improved
- Data transparency improved
- Methodology for inventory upgraded (fully in line with EMEP/EEA Guidebook 2019)
- In total inventory implemented for 50 subcategory

Projection

- Emission projection for 2025 and 2030 developed
- Relevant trainings conducted and necessary materials transmitted
- International obligation under CLRTAP implemented
- Efficiency of emission abatement measures and its prioritization assessed



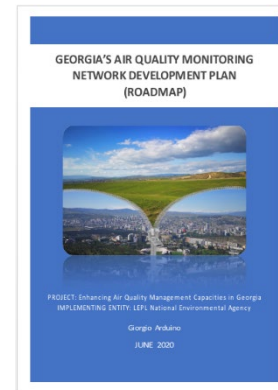
Updated Legislation for Ambient Air Quality Management

- Based on EU directives 2008/50/EC and 2004/107/EC amendment to the Georgian Law on Ambient Air Protection (May 22, 2020):
 - Creation of European system for ambient air quality assessment;
 - **Establishment and classification of zones and agglomerations;**
 - Development of **ambient air quality management plans and short-term action plans** in the zones and agglomerations where the problem of pollution or the risk of a problem arises;
 - **Continuous and timely access to information on ambient air quality** and its improvement measures for the public
- The Government Resolution №383 (27.07.2018) on approval of **European ambient air quality standards** (EU directives 2008/50/EC, 2004/107/EC);
- The draft by-law introducing requirements for **air quality assessment criteria** based on EU directives (2008/50/EC, 2004/107/EC);



Zones and Agglomeration

- **Establishment** of zones and agglomeration by September 1, 2021;
- **Classification** of zones and agglomeration by January 1, 2025;
- **First outline** of zones and agglomeration is ready within Air Quality Monitoring Network Development Plan (Roadmap)



Zones & Agglomerations	Population
Agglomeration of Tbilisi	1.108.717
Black Sea Zone	635.480
West Zone	431.834
Central Zone	743.019
East Zone	287.122
High Zone	806.494

Ambient Air Quality Management Plans and Short-term Action Plans

Requirements of the Law of Georgia on Ambient Air Protection:

- Approval of **ambient air quality management plans** for zones and agglomeration where concentration of main pollutants exceed the limit or target values by September 1, 2022;
- Approval of **short-term action plans** in the zones and agglomeration where concentration of main pollutants exceed the alert thresholds by September 1, 2022.

An **Interagency Commission** for Studying Air Quality Improvement Issues created in 2020

Past Experience

- State Program on Enabling Activities to Abate Ambient Air Pollution in **Tbilisi** 2017-2020;
- Action Plan for Improving the Quality of Ambient Air in **Rustavi** 2020-2022.

Future Plans

- Tbilisi (2022-2024)
- Batumi (2023-2025)
- Kutaisi (2023-2025)
- Zestaphoni and Chiatura (2023-2025)
- Poti (2023-2025)
- Rustavi and Marneuli (2023-2025)
- Akhaltsikhe (2023-2025)

Measures related to GP Annexes IV, V, X

Implemented:

- The legislative package to reduce air pollution from industrial facilities (March 2, 2021):
 - Obligation for the subject of specific activities to carry out **continuous self-monitoring of emissions** from stationary pollution sources;
 - **Sanctions increased** for the absence or non-use of emission abatement systems, for exceeding the emission limit values, for non-compliance with the conditions of environmental impact permit / environmental decision
 - The enhanced **authorization to completely or partially restrict the activities of the enterprise** if its activities pose a significant threat to the environment or may endanger human life or health.
- The Government Resolution №256 (25.03.2017) on “Establishment of **limit values of Sulphur content in certain liquid fuels**” (such as heavy fuel, gas oil, and marine fuel);

Planned:

- Adoption of **new Law on Industrial Emissions** that will introduce an integrated permitting system and implies application of modern environmental management principles, such as Best Available Techniques (BAT) and Emission Limit Values (ELV)



Measures related to GP Annex VI

Implemented:

- Inventory of petrol storage terminals conducted;
- **Capacity of Georgia's existing petrol distribution system** to fulfil new requirements on VOCs (based on EU Directive 94/63/EC) assessed

Planned:

- Introduction of **legal requirements on petrol storage and distribution** to reduce emissions of Volatile Organic Compounds (VOCs) based on EU Directive 94/63/EC;

Target years (planned)	Availability of stage I petrol vapor recovery system at petrol stations	Availability of stage II petrol vapor recovery system at petrol stations	Availability of relevant petrol vapor recovery system in terminals	Availability of relevant petrol vapor recovery system in tankers
2020 - Baseline	Less than 1% of existing stations	Less than 1% of existing stations	No such system is available	Less than 1% of existing tankers
2021	All new stations throughput greater than 100 m ³ /year	All new stations	All new terminals	All road tankers those are equipped properly
2023	At least 65% of existing stations	At least 2% of existing stations	At least 10% of existing terminals	All new containers
2026	At least 75% of existing stations	At least 45% of existing stations	At least 18% of existing terminals	All rail tankers and vessels
2029	At least 90% of existing stations	At least 80% of existing stations	All existing terminals	



Measures related to GP Annex VIII

Implemented

- The **Euro 5 standard for petrol** – since 2017;
- The **Euro 4 standard for diesel** – since 2019;
- **State control of fuel quality** launched in 2016 and more than 900 samples were taken as of 2020;
- Sanctions for violation of fuel quality standards increased significantly;
- Promotion of **clean transport** including electric and hybrid cars by tax exemptions.

Planned

- The **Euro 5 standard for diesel** fuel – from 2022;
- Establishment of **emission standards for vehicles (Euro 5)** and restrictions on the import of vehicles with poor emission standards to renew and recover the existing vehicle fleet.



Measures related to GP Annex IX

Implemented

- **"Voluntary Code - Best Agricultural Practice for Reducing Ammonia Emissions** developed to decrease ammonia emissions from agriculture:
 - Nitrogen management, taking account of the whole nitrogen cycle;
 - Livestock feeding strategies;
 - Low-emission manure spreading techniques;
 - Low-emission manure storage systems;
 - Low-emission animal housing systems; and
 - Possibilities for limiting ammonia emissions from the use of mineral fertilizers.

Planned:

- Support best agricultural practices by establishing relevant mandatory requirements for beneficiaries to obtain investments and grants from the state agricultural programmes



Measures related to GP Annex XI

Implemented:

- **Capacity of Georgia's existing paint production and distribution system to fulfil new requirements on VOCs (based on EU Directive 2004/42/EC) assessed**

Planned:

- **Introduction of legal requirements on use of organic solvents in paints to reduce emissions of Volatile Organic Compounds (VOCs) based on EU Directive 2004/42/EC;**



Selection of the imported paints in specialized shop in Tbilisi, 2019

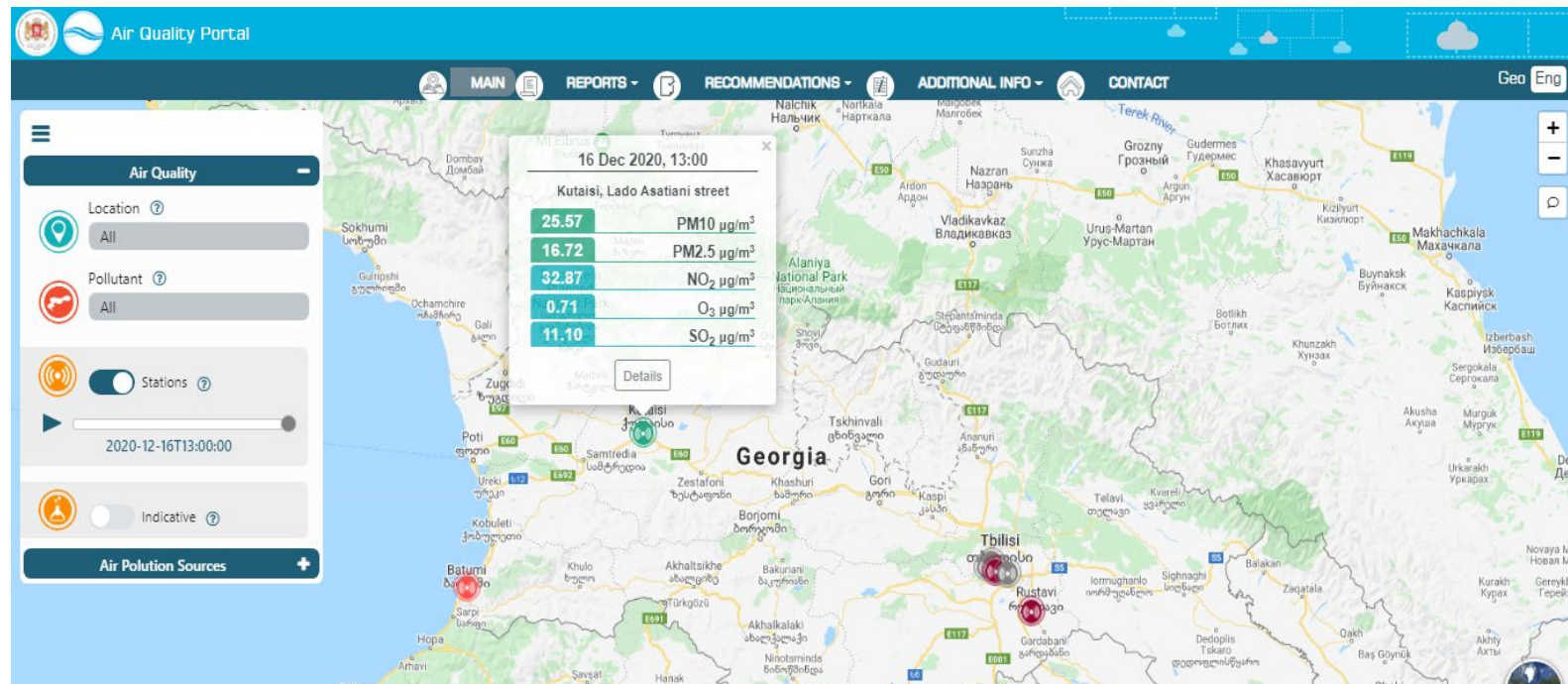
A. MAXIMUM VOC CONTENT LIMIT VALUES FOR PAINTS AND VARNISHES

	Product Subcategory	Type	Phase I (g/l ^(*)) (from 1.1.2007)
a	Interior matt walls and ceilings (Gloss < 25@60°)	WB SB	75 400
b	Interior glossy walls and ceilings (Gloss > 25@60°)	WB SB	150 400
c	Exterior walls of mineral substrate	WB SB	75 450
d	Interior/exterior trim and cladding paints for wood and metal	WB SB	150 400
e	Interior/exterior trim varnishes and woodstains, including opaque woodstains	WB SB	150 500
f	Interior and exterior minimal build woodstains	WB SB	150 700
g	Primers	WB SB	50 450
h	Binding primers	WB SB	50 750
i	One-pack performance coatings	WB SB	140 600
j	Two-pack reactive performance coatings for specific end use such as floors	WB SB	140 550
k	Multi-coloured coatings	WB SB	150 400
l	Decorative effect coatings	WB SB	300 500

(*) g/l ready to use

Public Access to Ambient Air Quality Data

Air Quality Portal - Air.gov.ge



Kutaisi (KUTS)

Location: Lado Asatiani street

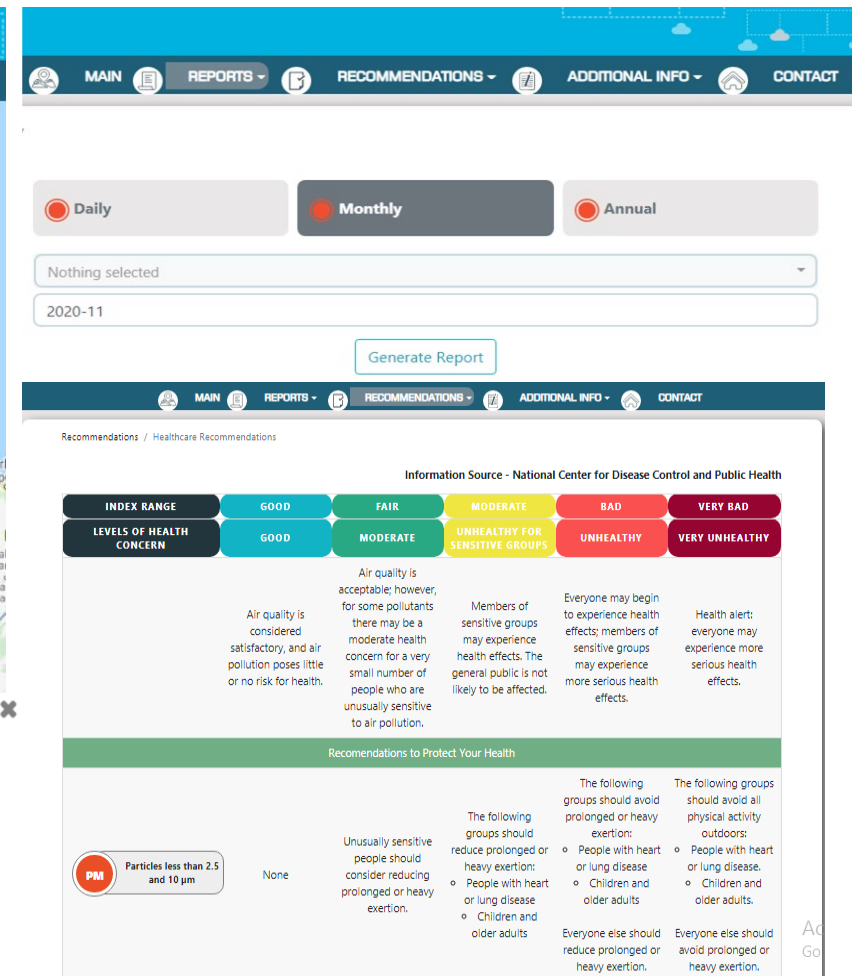
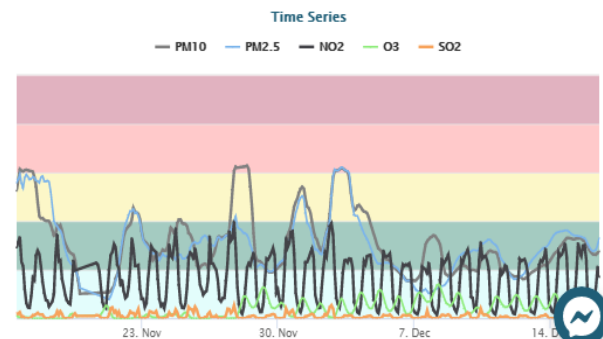
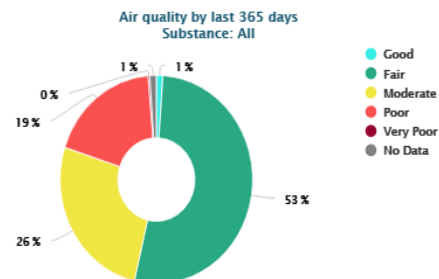
Latitude: 42.2679

Longitude: 42.6946

Station Type: ქალაქის გზისპირა სადგური

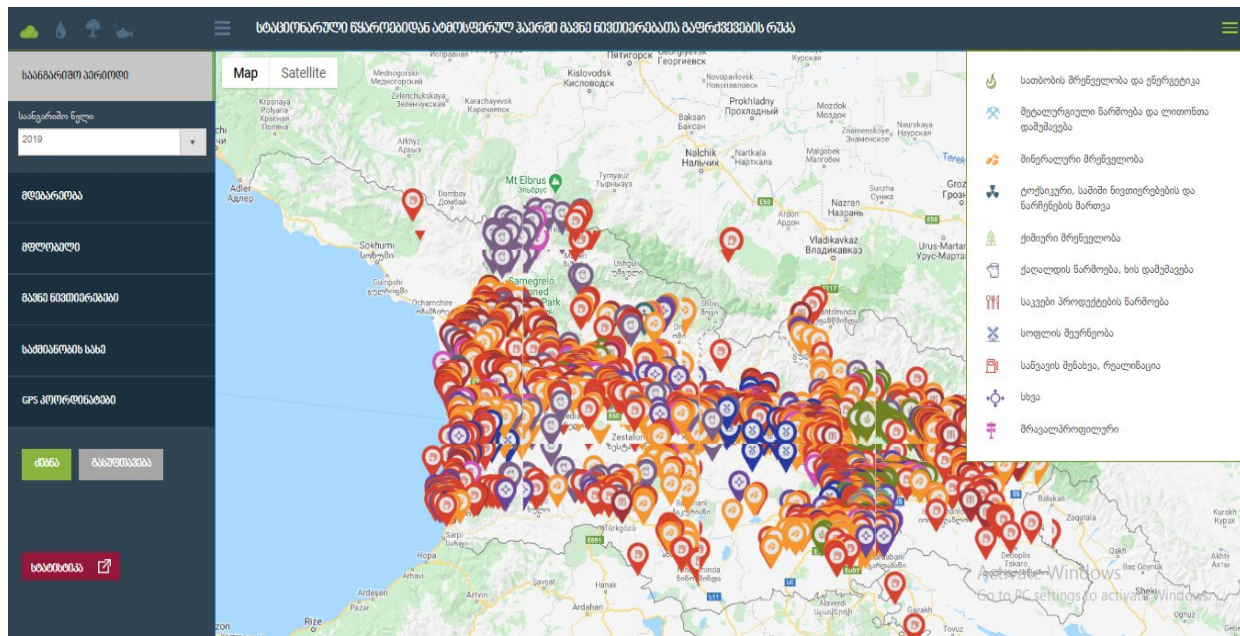
Description: In Kutaisi Atmospheric Air Pollution Monitoring Automatic Station is located on Lado Asatiani street. The station operated since June 2017. At the station the following parameters are measured: PM10, PM2.5, SO₂, NO, NO_x, NO₂, O₃, CO and meteorological parameters.

Station Images:



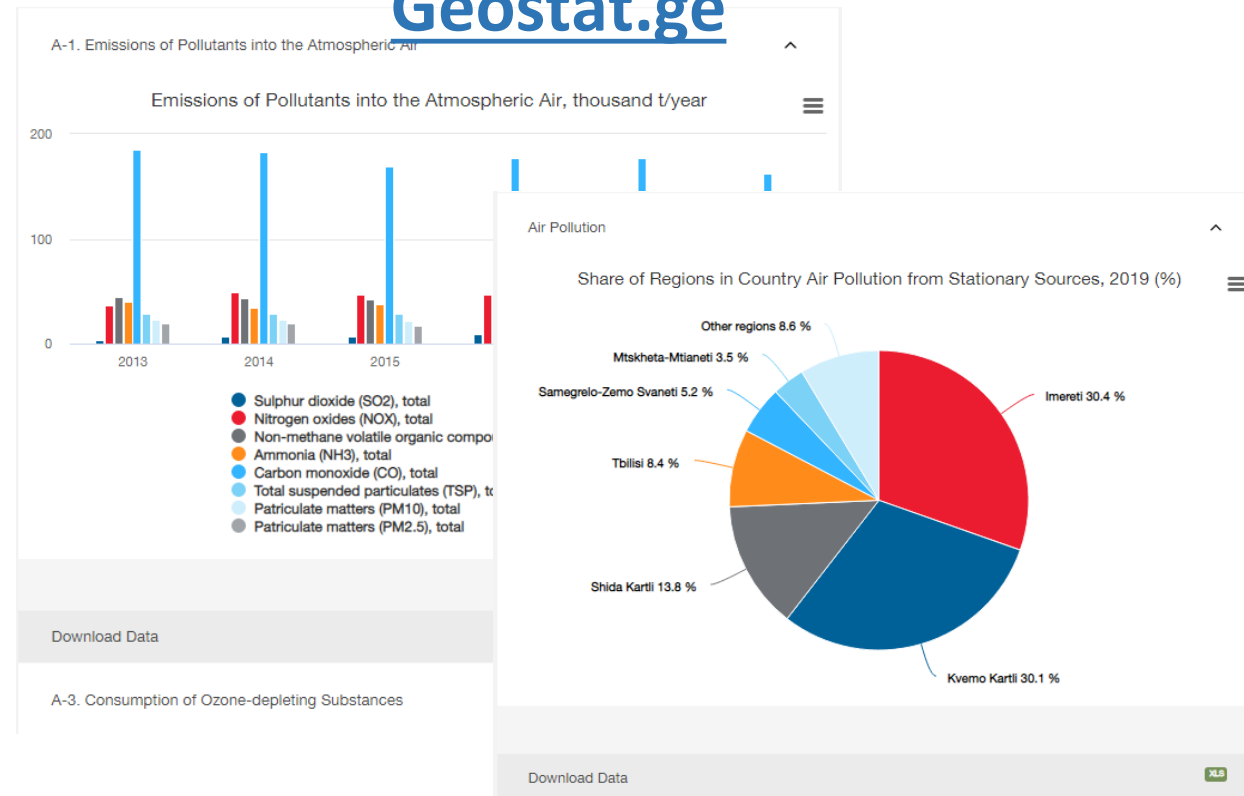
Public Access to Ambient Air Emission Data

Map of emissions of pollutants into the ambient air from stationary sources - Map.emoe.gov.ge



Aggregated data including UNECE Environmental Indicators

Geostat.ge



Next Steps

- **Expansion of ambient air quality monitoring network according to the provisions of the Georgia's Air Quality Monitoring Network Development Plan (Roadmap);**
- **Improvement of data validation system;**
- **Introduction of ambient air quality modelling system for cities;**
- **Approval of the by-laws on:**
 - **Air quality assessment criterias;**
 - **Vehicle emission standards;**
 - **Requirements on petrol storage and distribution to reduce emissions of VOCs**
 - **Requirements on use of organic solvents in paints to reduce emissions of VOCs**
- **Adoption of new Law on Industrial Emissions**
- **Establishment and classification of zones and agglomerations;**
- **Development of ambient air quality management plans and short-term action plans**
- **Operationalization of Interagency Commission for Studying Air Quality Improvement Issues**

THANK YOU FOR ATTENTION

Noe Megrelishvili

Noe.Megrelishvili@mepa.gov.ge