UNECE
Environmental Monitoring and Assessment Programme

Report on environmental indicators affected by COVID-19 in the target countries of the UNDA project

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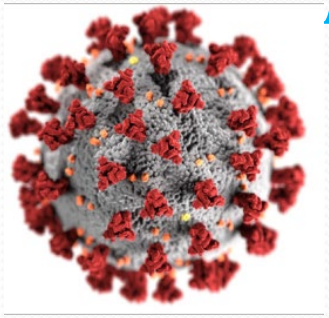


Scoping

Activity 1.1 *Identify a selection of relevant environmental indicators affected by the response to COVID-19 and gather time-series data for the target countries of the project*

Consultant worked under guidance of the UNECE Secretariat and in coordination and cooperation with members of the Joint Task Force on Environmental Statistics and Indicators, the Working Group on Environmental Monitoring and Assessment and National focal points in the target countries.

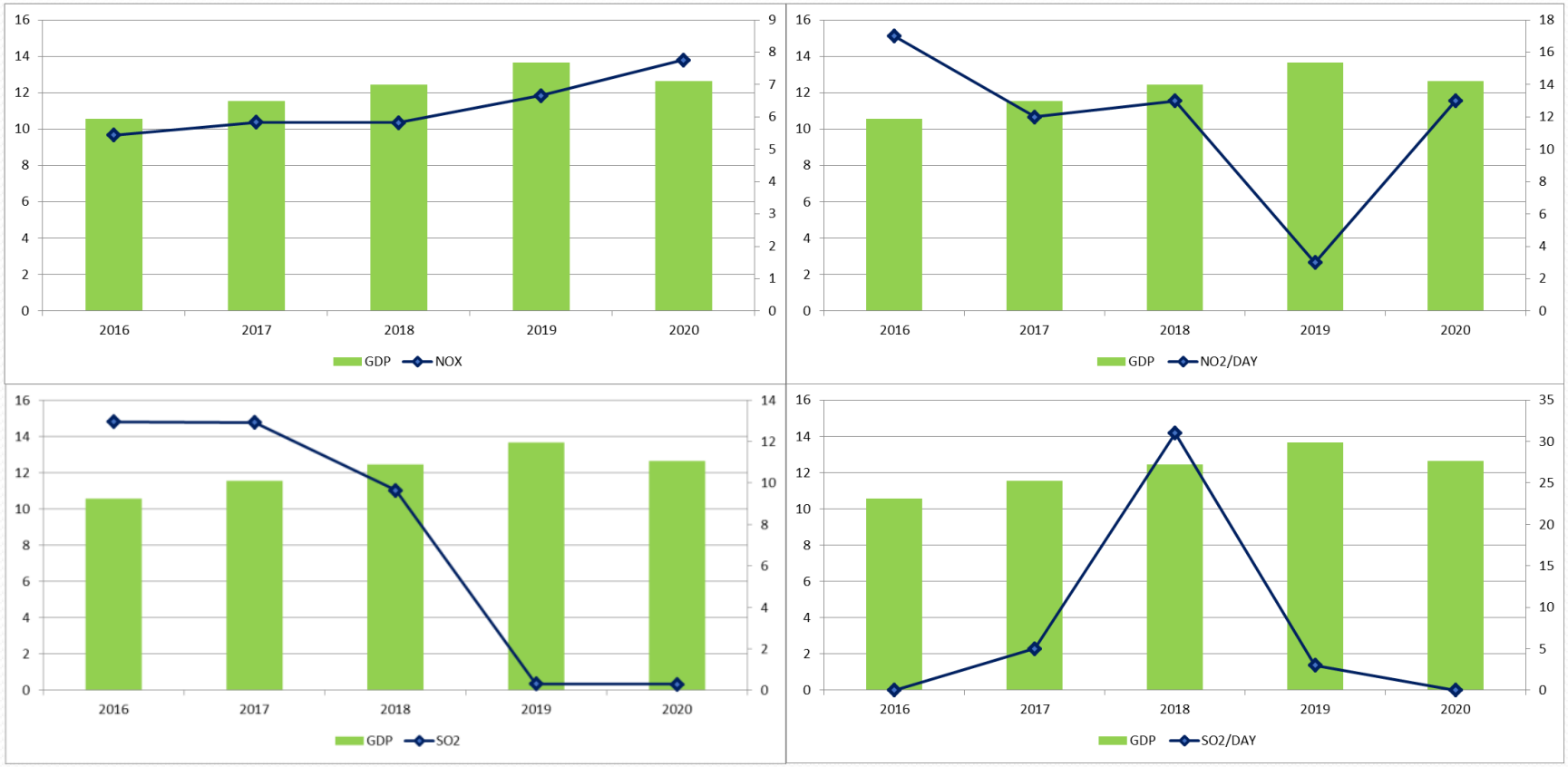
7 target countries: Armenia, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, North Macedonia and Tajikistan.

Review and identifying a selection of relevant environmental indicators affected by the response to COVID-19

List of indicators affected by the response to COVID-19

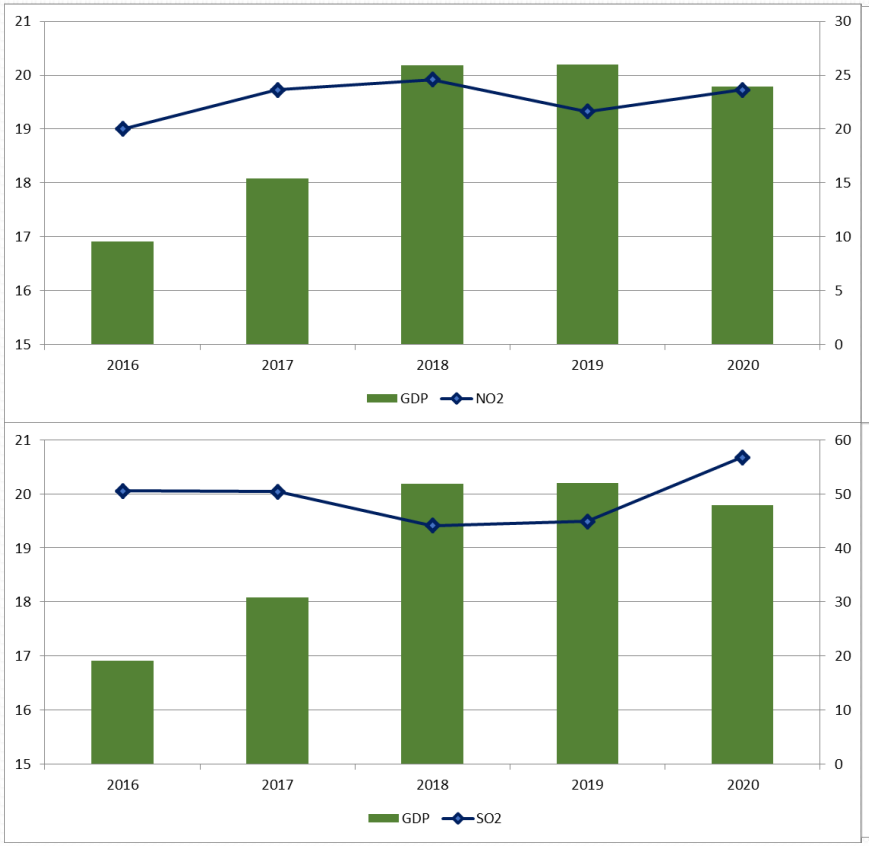
A-2.2	**SO_2: Number of days with exceeded daily limit value**
A-2.4	NO_2: Number of days with exceeded daily limit value
A-1.1	Emissions of sulphur dioxide per capita
A-1.2	Emissions of sulphur dioxide per square kilometre
A-1.3	Emissions of sulphur dioxide per unit of GDP
A-1.4	Emissions of nitrogen oxides per capita
A-1.5	Emissions of nitrogen oxides per square kilometre
A-1.6	Emissions of nitrogen oxides per unit of GDP
A-1.7	Emissions of non-methane volatile organic compounds (NMVOC) per capita
A-1.8	Emissions of non-methane volatile organic compounds (NMVOC) per square kilometre
A-1.9	Emissions of non-methane volatile organic compounds (NMVOC) per unit of GDP
A-1.10	Share of sulphur dioxide emissions from stationary or mobile sources
A-1.11	Share of nitrogen oxides emissions from stationary or mobile sources
A-1.12	Share of NMVOCs emissions from stationary or mobile sources
A-1.14	Share of carbon monoxide emissions from stationary or mobile sources
A-1.15	Share of hydrocarbons emissions from stationary or mobile sources
B-3.7	CO_2 emission per unit of value added (SDG indicator 9.4.1)
B-3.12	Total greenhouse gas emissions from production activities
C-16.2	Proportion of domestic and industrial wastewater flows safely treated (SDG indicator 6.3.1)
C-16.3	Total removal rate of BOD_5 from generated wastewater before discharge to the environment
C-16.4	Total removal rate of COD from generated wastewater before discharge to the environment
C-16.5	Total removal rate of nitrogen from generated wastewater before discharge to the environment
C-16.6	Total removal rate of phosphorus from generated wastewater before discharge to the environment
C-3.4	Freshwater use per unit GDP
J-1.2	Environmentally related taxes, % GDP
J-1.1	National expenditure on environmental protection, % GDP

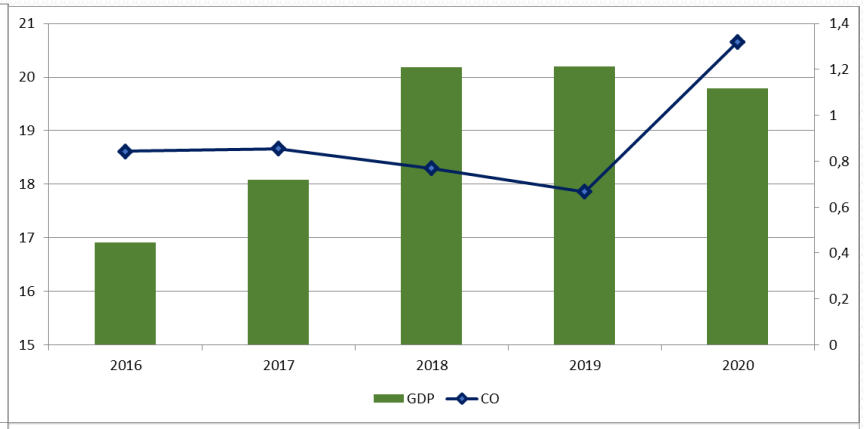
Armenia

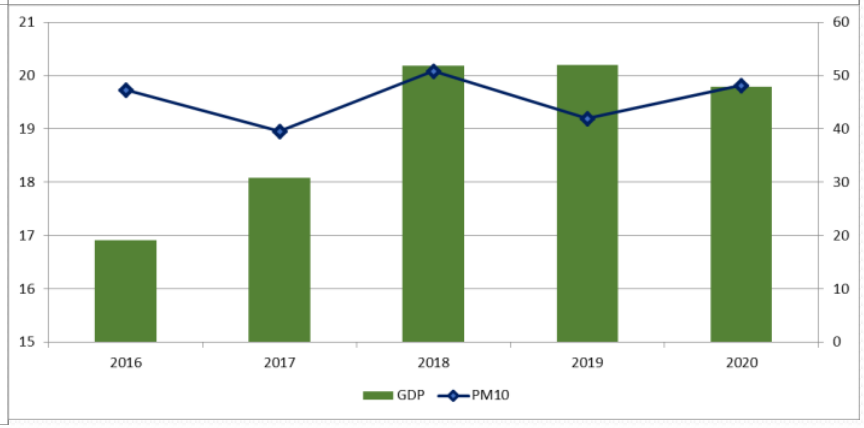


The main sources of emissions are transport, electricity production and mining, quarrying

Bosnia and Herzegovina



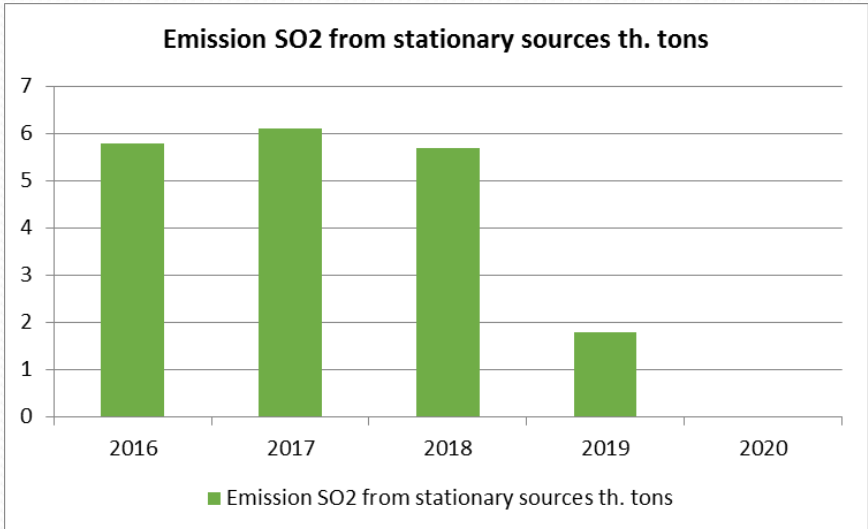


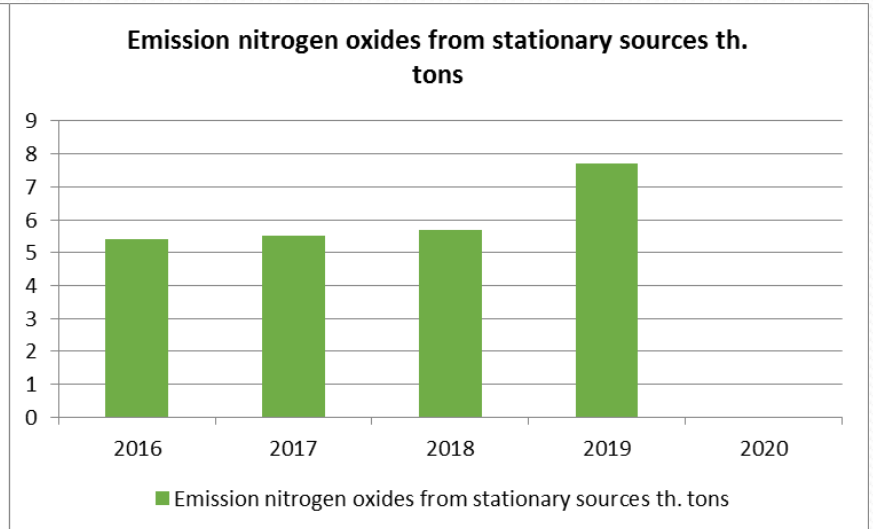


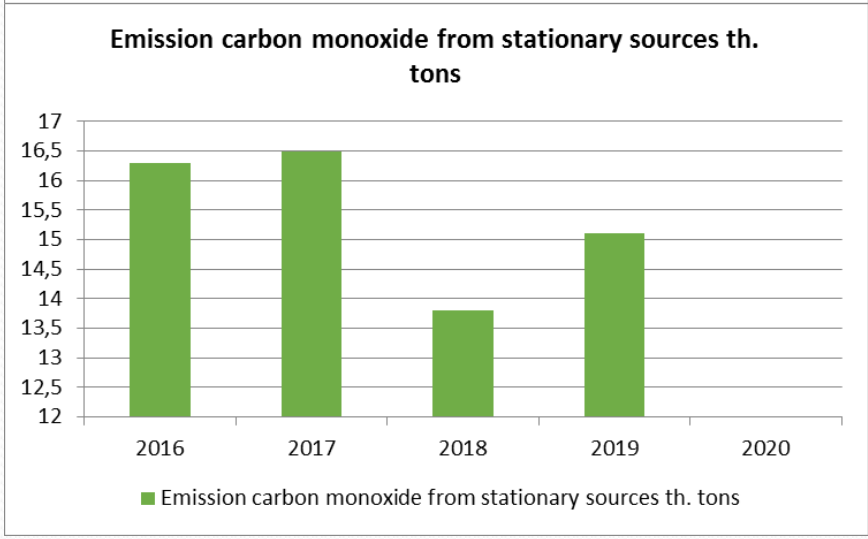
NOTE: Air quality data

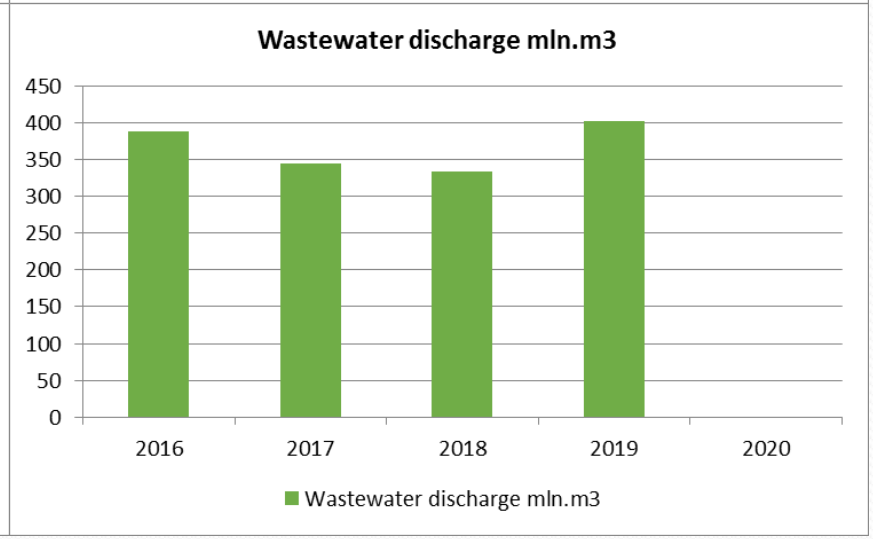
Agriculture is the main branch of the economy of Bosnia and Herzegovina, the share of the rural population is slightly more than 50 %

Georgia



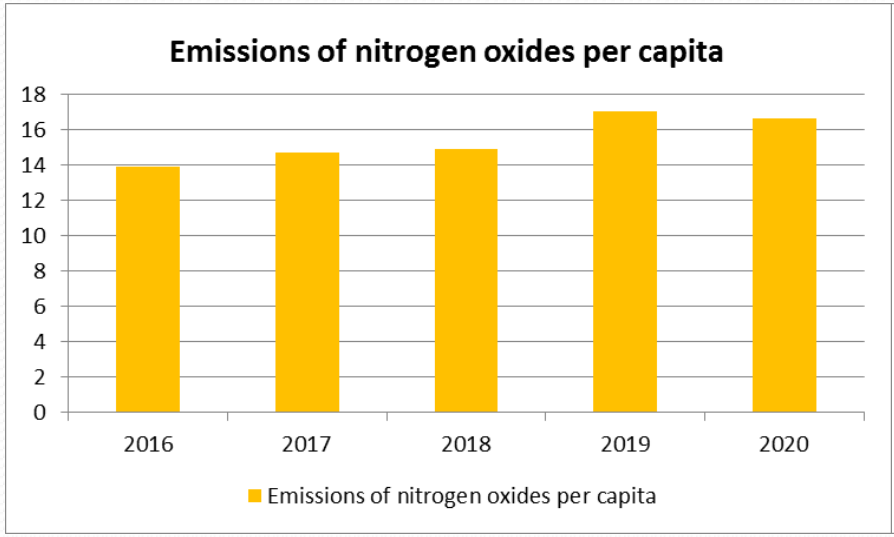


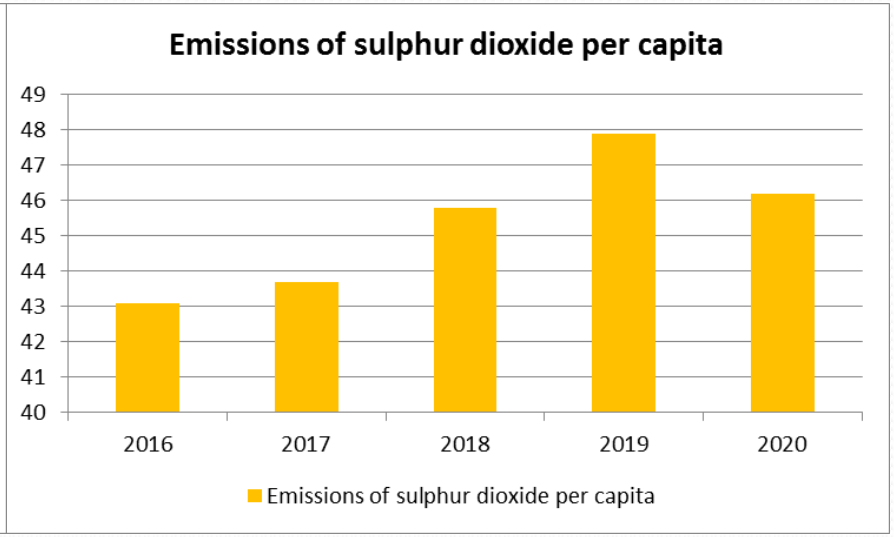


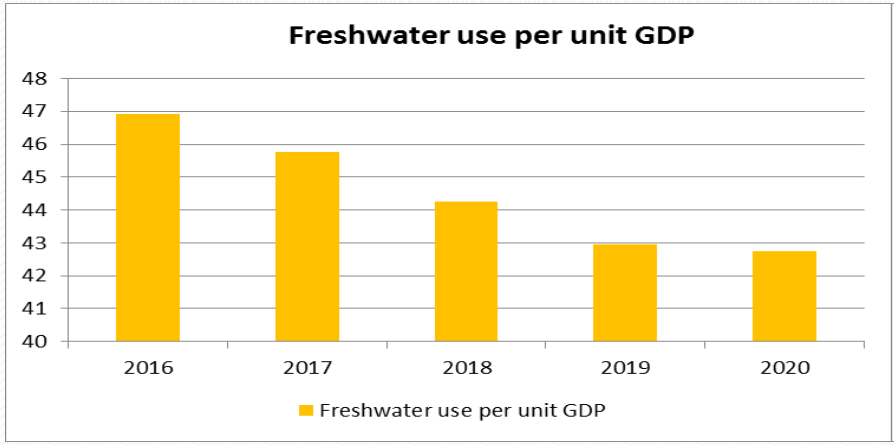


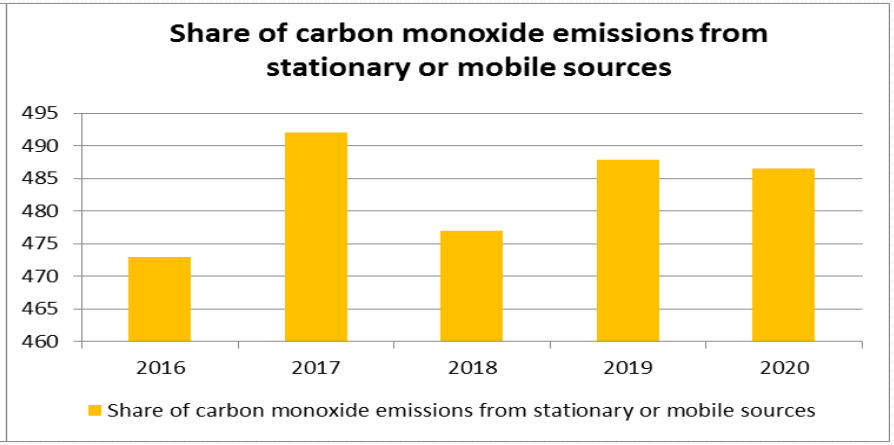
Air is polluted by emissions of vehicles, energy sector, agriculture and industrial facilities. Major pollutant in urban area is transport

Kazakhstan



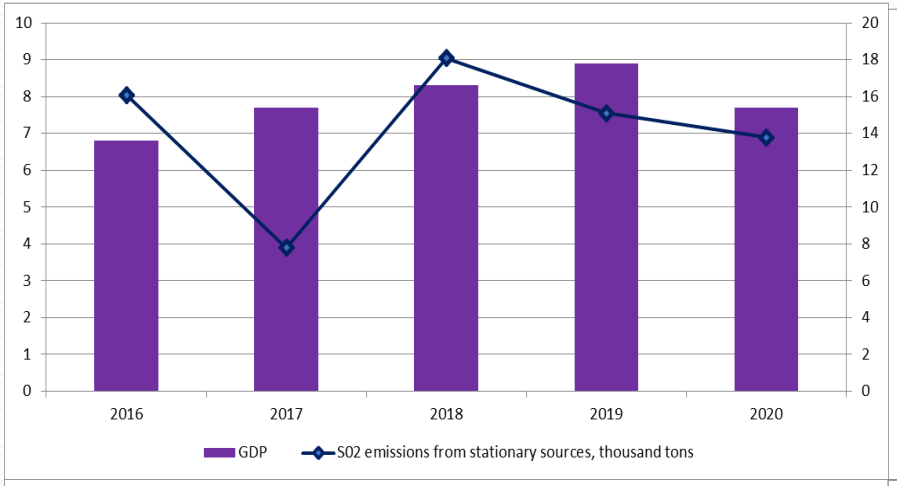


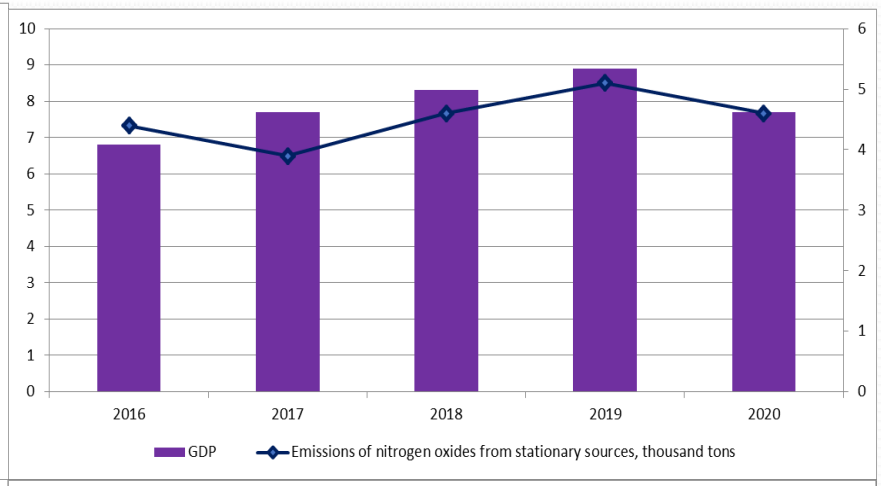


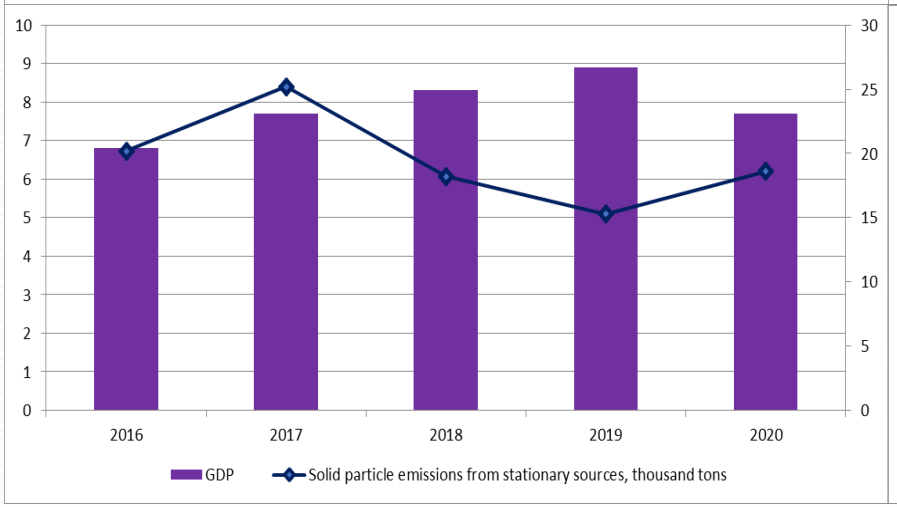


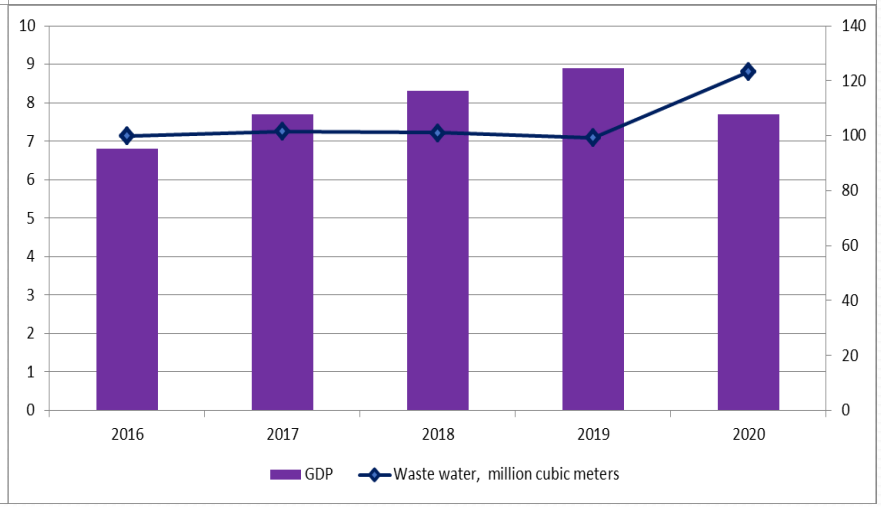
Main volume of emissions is formed in Pavlodar and Karaganda districts

Kyrgyzstan



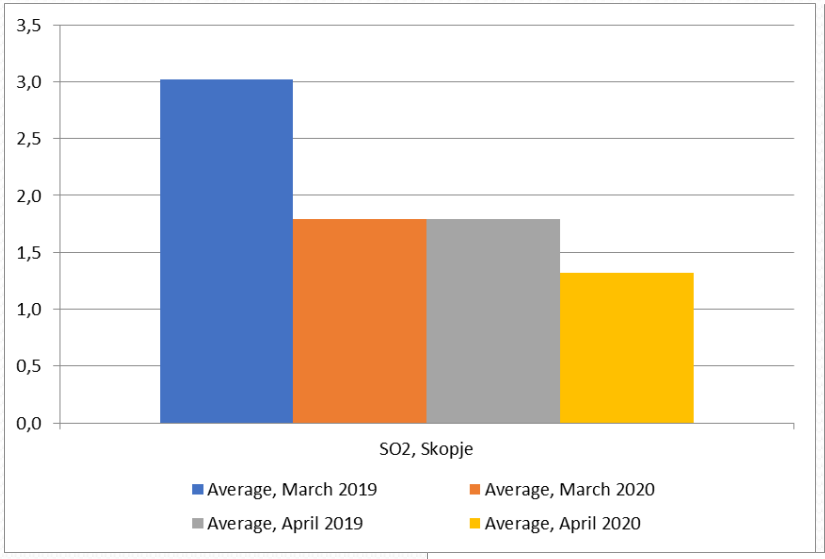


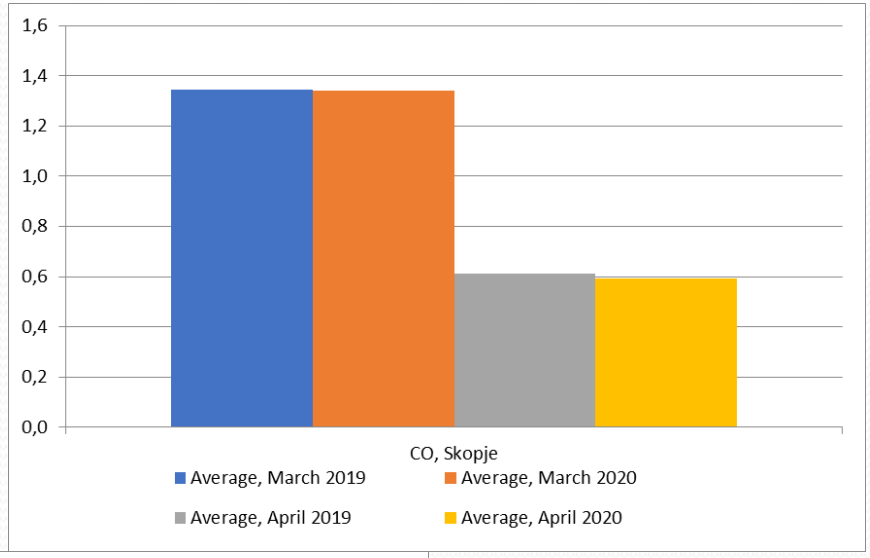


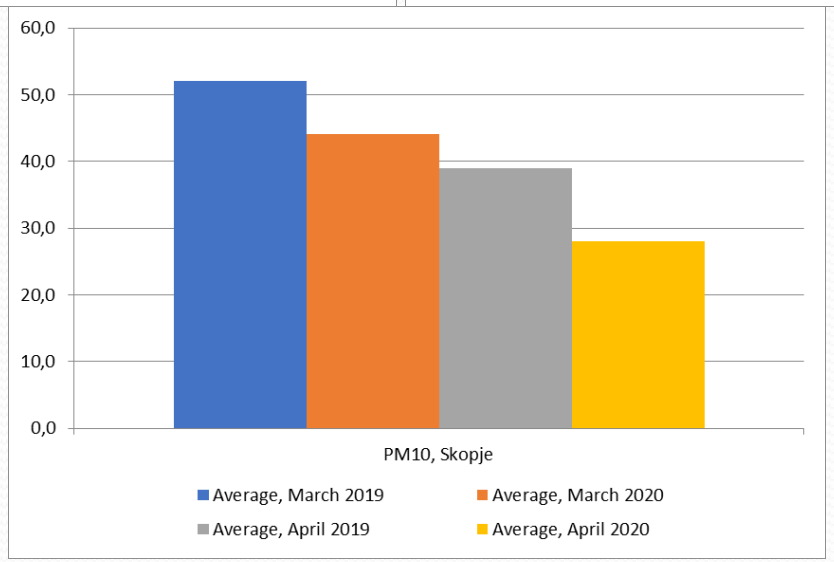


98.0 % of total emissions of pollutants from stationary sources are accounted for by provision of electricity, gas, steam and conditioned air; manufacturing industry; mining

North Macedonia

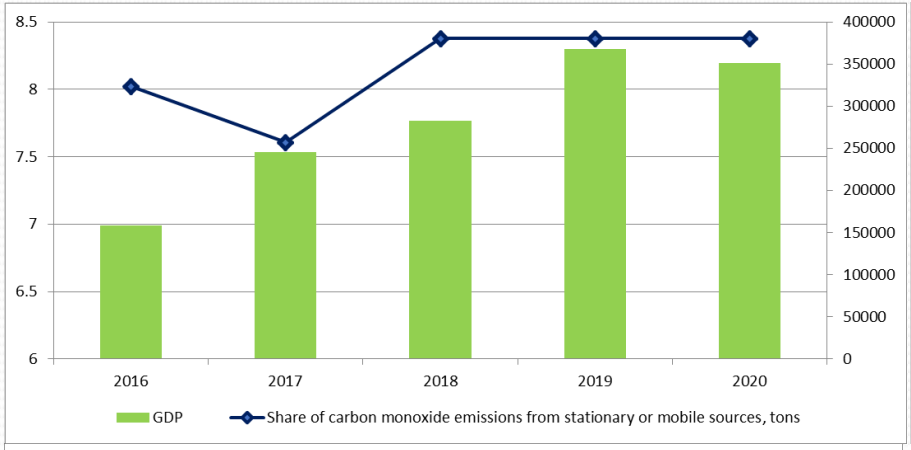


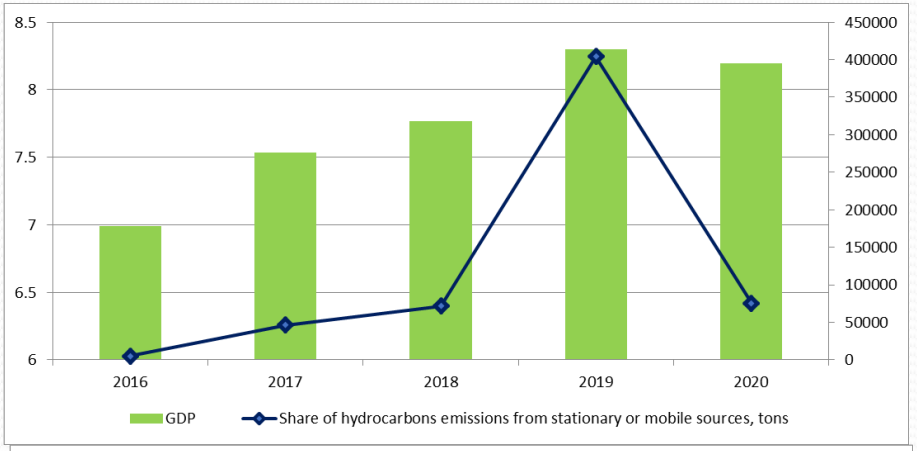


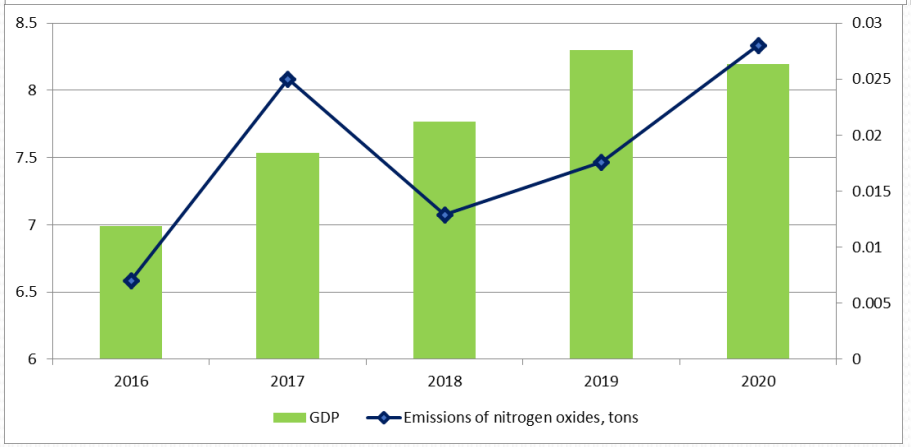


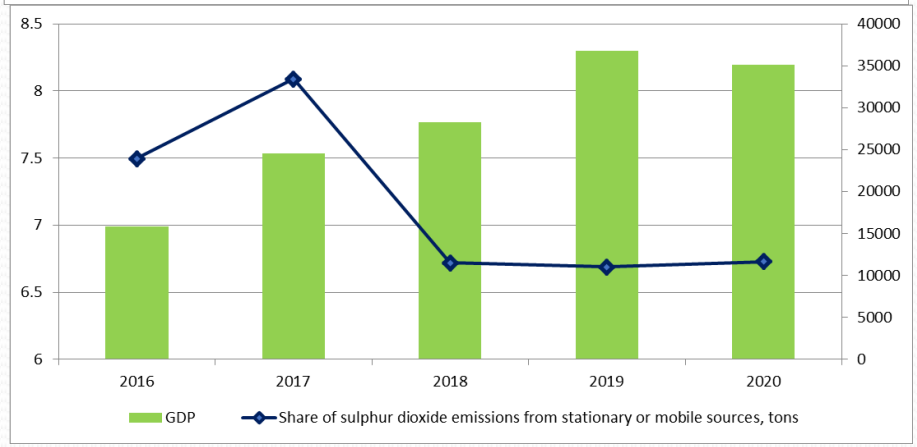
Coal consumption in electricity production, residential heating, ferroalloys production and energy production, transport

Tajikistan









The main source of air pollution is vehicle emissions. The largest emissions of harmful substances from stationary sources occur in metallurgical and cement plants, as well as coal-fired thermal power plants

Conclusion

The common feature for all countries is the reduction of environmental expenditures.

Ambient air and emissions are the main vulnerable indicators for assessing the pandemic influence.

The influence COVID-19 pandemic into environment depends not only on taken measures and restriction, but also on the relevant economy activity in the country that mainly polluting the environment, accordingly the main pollutants and their behavior in the environment caused by natural factors and geographic conditions of country:

- in the countries with prevailing agricultural economic sector or rural population environment quality was not improved and air emissions was not decreased;
- in the countries with coal combustion for energy production or heating also no improvement of air quality;
- in the countries where transport using, passenger traffic and cargo transportation were decreasing there can observer the decreasing of CO and NO_x emissions.

THANK FOR YOUR ATTENTION and COOPERATION!

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