European Environment Agency

Country Fact Sheet

2018-2020

BELARUS

Introduction

This fact sheet was developed by the European Environment Agency under the air component of the EU funded ENI SEIS II East project with an objective to increase the use and public accessibility of air quality measurement data in the ENI East countries. The aim of this document is to describe the state of play of air quality monitoring and data management.

This factsheet was prepared by the team of experts from the European Environment Agency (EEA), Norwegian Institute for Air Research (NILU), 4sfera and the national experts from Belarus.

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Implementation of the Shared Environmental Information System principles and practices in the Eastern Partnership countries (ENI SEIS II East)

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1. Legal framework

- Law of the Republic of Belarus "On State Statistics"
- Statute of the National Statistical Committee of the Republic of Belarus
- Strategy for the development of state statistics, 2018-2022
- Statistical work program, 2018
- Agreements on information exchange between Belstat and other state bodies

2. Institutional framework

- Ministry of Natural Resources and Environmental Protection
- Belhydromet
- Branches regional centres for hydrometeorology monitoring of the environment

Currently there are thirty-four bilateral agreements on information exchange between Belstat and other state bodies, ten of them on environmental data, including two for air quality.

Monitoring of atmospheric air in the Republic of Belarus is carried out by Belhydromet.
A large amount of work on the study of the air in parks, recreation areas, near highways, under industrial stack plumes, is carried out by the Centres for Hygiene, Epidemiology and Public Health. Many large industrial enterprises have departmental laboratories and monitor emissions of pollutants into the atmosphere.

3. Management of ambient air quality monitoring

- National Reference laboratory: State Committee for Standardization of the Republic of Belarus.
- Instrument maintenance is provided by the technical service of Belhydromet and supplier services.
- Data is stored in database.
- Accreditation certificate, ISO 17025.

Dissemination
- Daily information on the state of atmospheric air on the site of Belhydromet.
- Quarterly reviews of the state of atmospheric air, semi-annual review of the state of atmospheric air, Yearbook of the state of atmospheric air, National report, NSEM: observations, environmental bulletin, air quality forecasts.
- Yearbook of the state of atmospheric air, National report, NSEM.

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4.   Monitoring network

Number of stations: 67 air quality stations

Station meta data
- Geo coordinates
- Station type (i.e. urban, suburban, rural)
- Dominant emission sources
- Approximate distance to emission source (ex. meters to roadside)

Instruments
- 16 automatic analyser samplers
- 51 manual samplers
- Parameters measured in manual stations: CO, NO, NO_2, SO_2, O_3, PM-10, PM-2,5, VOC, benzene, benzo[a]pyrene, formaldehyde, lead, cadmium, meteorological parameters

Instrument models
- SM 200 (PM-10, PM-2,5)
- BTX GC955 Sinspec BV, Holland
- ML9850B (SO2), ML9830B (CO), ML9810B (O3),
- ML9841 (NOx) Monitor (Europe) Ltd
- Horiba APSA-370 (SO2), Horiba APMA-370 (CO),
- Horiba APOA-370 (O3), Horiba APNA-370 (NOx)

Software
- Data logger: in stock
- Data acquisition: every minute – for automatic analyser sampler
  3-4 times a day - for discrete sampling
- National Database using Oracle, Firebird
- Air Quality Dissemination System: www.rad.org.by.

Modelling
Operative forecasting of atmospheric air quality is carried out in 14 cities of the Republic. Since 2013, operational forecasts of air quality in Minsk are daily posted on the website of Belhydromet.

5. Conclusions from Regional AQ Workshops (September 2018 and November 2019)

Status
- Manual monitoring
- 16 automatic stations (problems with maintenance)
- Database is in place with acquisition systems
- Data in near real time (need to check equipment)

Identified need for assistance
- Data management
- May require calibration/maintenance protocol
- Review existing data (both automatic/manual)

6. Conclusions from country visit (June 2020)[1]

Status
- Belarus relies both on automatic monitoring stations as well as traditional monitoring.
- e-Reporting tool named Raven demonstrated during video-conference.
- There is IT infrastructure in place for centralizing and gathering data from existing and future automatic stations.

Training requirements
- AQ Data management
- Management of AQ monitoring network
- Standardization and modelling
- Data reporting and revision of historical data
- Setting up Reference Laboratory for AQ monitoring

Data exchange with EEA
- Potential to install Raven tool
- Up-To-Date air quality data exchange should be possible
- Assistance will be necessary to start up Raven and set up meta-data

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[1] By tele-conference due to COVID 19 outbreak