



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA KMETIJSTVO IN OKOLJE
AGENCIJA REPUBLIKE SLOVENIJE ZA
OKOLJE

Air Quality Planning in Slovenia

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Outline

- Historical development of the AQ policies in Slovenia
- Legal framework for AQ plans
- Status AQ plans preparation
- AQ plan measures
- AQ plan monitoring & novelation

Historical development of the AQ policies in Slovenia

First measurements in 1968 revealed extreme concentrations SO_2 in the vicinity of coal fired power plants and in the urban environment

Max. hourly conc. SO_2 measured in capital Ljubljana close to $10.000 \mu\text{g}/\text{m}^3$

High levels of black smoke

Power plants and industry higher chimneys – no desulfurisation available at that time



Historical development of the AQ policies in Slovenia

1975 – Air quality protection act

- Local authorities obliged to prepare a kind of AQ plans
- Ban of high sulphur coal possible
- Restrictions when the extreme levels were reached
- Development of the district heating systems – in Ljubljana 50 % of the dwellings connected now

At the latter stage

- Cleaner fuels and flue gas treatment in energy and manufacturing industry
- Cleaner fuels and natural gas in households

AIR QUALITY (SO₂), A SUCESS STORY OF THE PAST

Legal framework for AQ plans

Environmental protection act (1991):

- In the case of the non-compliance with environmental standards Government could declare degraded area,
- For the degraded area Government with cooperation of local authorities and other stakeholders should prepare remediation plan.

AQ decree:

- A subzone is established for the purpose of AQ management where limit values are exceeded,
- In line with Environmental protection act – degraded area - Government shall prepare AQ plan in according to requirements of the directive 2008/50/EC.

Status of the AQ plans preparation

Daily PM₁₀ limit value non – compliance was assessed in:

- both agglomerations (Ljubljana and Maribor)
- 4 cities (Kranj, Celje, Novo mesto, Murska Sobota) and Zasavje region

7 AQ plans were prepared by the Env. Ministry in cooperation with local authorities

Plans were agreed by the city councils - for the part of the measures to be implemented by the local authorities

All 7 plans were adopted by the Government in 2013

Implementation started in 2014

AQ plan measures

Energy and buildings

benefit from synergies and balance trade –offs with energy&climate policies

General provisions:

legal framework to additional/more favourable state subsidies for :

- improvement of the thermal insulation of the buildings
- installation of the new heating systems

and introducing limitations

- where district heating - no subsidies for biomass and heat pumps
- where gas supply network – no subsidies for biomass

State subsidies may be complemented with local sources

Specific:

- small scale biomass district heating systems
- geothermal,
- development of gas supply network,

AQ plan measures

Transport

synergies with sustainable mobility & noise

Modal split shift – public transport, cycling, walking

- more subsidies for public transport
- traffic management in favour of public transport
- new infrastructure

Renewal of the vehicle fleet and cleaner vehicles (CNG,)

Subsidies for buses,....

In some areas- lower speed limits at some roads managed at state level

Local specific measures

AQ plan measures

Other measures

Awareness raising and information campaigns

Wood combustion in small heating appliances

- proper preparation of the wood – moisture level
- proper maintenance and operation of heating appliances
- estimation 20 % lower PM emissions and fuel savings

Industry

- additional focus on fugitive emissions,
- environmental management system

Local development strategies/plans shall take into the account AQ issues

AQ plan monitoring & novelation

Gaps in knowledge indentified

Program, coordinated by the Env. Agency shall be implemented:

- detailed local emission inventories
- AQ monitoring
- additional meteo data for dispersion modelling
- dispersion modelling
- receptor modelling
- assessment effectives of the measures and evaluation of scenarios

AQ plan has to be regularly up-dated.