



Water Pollution in the Czech Republic

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Basics

The Czech Republic, like nearly all countries, suffers from pollution in their water systems. The activities of the former soviet army caused a major burden on the water supply.

Three major european river basins: the odra, the elbe, and the Danube

The Risk

Decreasing health of drinking water and ecosystems

Negative externalities

Solving Problems

Ministry of the Environment of the Czech Republic/EU policy

Focuses and principles of Czech environmental policy

The Bilina River

- One of the most highly polluted rivers in the Republic
- There are many health issues, both on a personal and ecosystem scale, that occur because of this pollution.
- Significant negative externalities can occur as well



Relevant Environmental Policy

The Ministry of the
Environment

EU Environmental
Legislation

Ministry of Environment

- The Czech Ministry of Environment was established January 1st of 1990 to function as the central state administrative authority and supreme inspection authority in environmental affairs in the Czech Republic.
- While the following policies are specific to the current 2012-2020 environmental plan, the Ministry's policies have not wavered to significantly since its founding

Ministry of Environment

- As the EU Member State, the Czech Republic will aim to fulfil its commitments set in the EU environmental legislation, and will remain an active and reliable partner in formulating new legislative, non-legislative and strategic EU documents at all levels within the European structures.
- Bilateral and multilateral environmental cooperation
--> solutions of environmental issues

State Environmental Policy

Focuses:

- **Protection and sustainable use of resources:** natural resources, water protection and its improvement, preventing generation of waste
 - **Climate protection:** improvement of ambient air quality, reducing greenhouse gas emissions, promote effective use of nature friendly renewable sources of energy
 - **Protection of nature:** strengthening of ecological functions of landscape
 - **Safe environment:** prevention of impacts of environmental disasters
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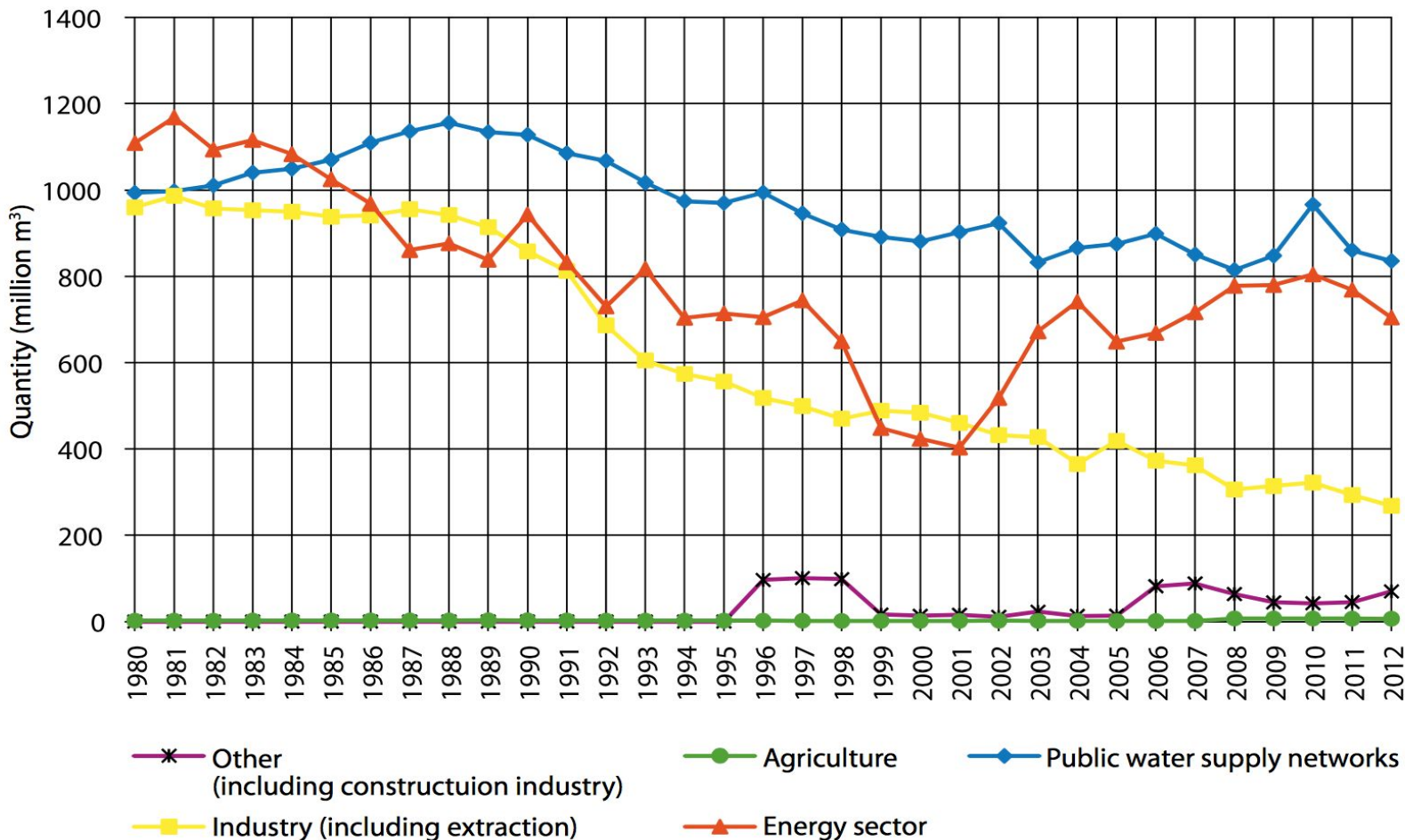
State Environmental Policy

Principles:

- Policy integration principle
 - Prevention principle
 - Precautionary principle
 - Polluter pays principle
 - Principle of cost-effectiveness
 - Public awareness
 - Principle of international responsibility
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Chart 4.3.1

Discharges of waste waters in the Czech Republic in the years 1980–2012



European Union Policy

- The European Commission is the executive body of the European Union
- The Directorate-General for Environment is the European Commission division that handles EU environmental policy.
 - Its main goals are stated as to protect, preserve and improve the environment for present and future generations, proposing and implementing policies that ensure a high level of environmental protection and preserve the quality of life of EU citizens. It also makes sure that Member States apply EU environmental law correctly and represents the European Union in environmental matters at international meetings.
- Because of the Czech Republic's position in the EU, its environmental policies must coincide with EU policy, and as a result the main goals and themes of each policy go hand in hand

EU Water Framework Directive

- Main aim is to achieve a good status of all surface and groundwater and prevention of their deterioration
 - Prescribes steps to reach common qualitative and quantitative goals
 - Relevant measures for individual river basins
 - The policy also focuses on objectives covered in other water directives
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Law requires
companies to have
water treatment
plants

1973



1992



Waste Control
Act

1997



2000



EU Water Framework
Directive Adopted

2009



14 New sewage
disposal plants
opened

Czech National Council Act on the
Protection of Nature and the Landscape

Water Management Act

Water Protection Act



Progress Made

Water Quality

- Gradually improving thanks to a reduction in discharge of point source pollution
- 93% of population has high quality drinking water

Water Treatment

- The number of water treatment plants has nearly doubled since 1990
- Especially with the tertiary treatment stage
- 97% of wastewater is treated

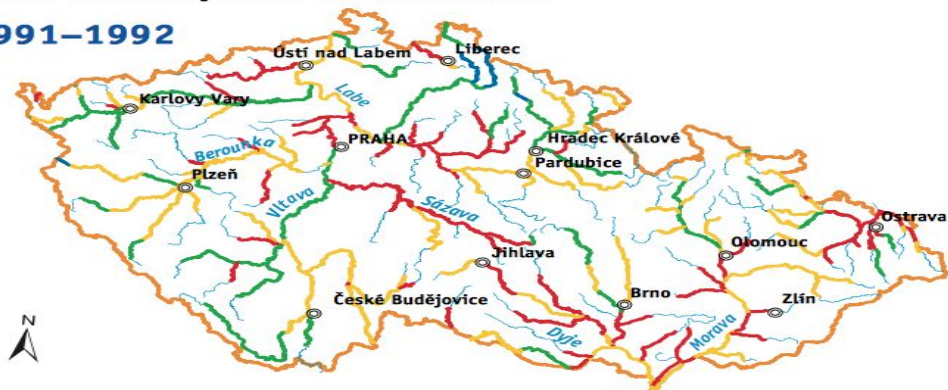
Waste Production

- Decreased by 15% between 2003 - 2011
- Recycling efforts since 1990
 - Increased for most materials, especially glass due to incentives

📍 **A comparison of water quality in the Czech Republic's watercourses, 1991–1992 and 2006–2007**

Source: T. G. Masaryk Water Research Institute

1991–1992



Classes according to ČSN 75 7221

- I and II – Unpolluted and slightly polluted water
- III – Polluted water
- IV – Heavily polluted water
- V – Very heavily polluted water

2006–2007



Note: The basic classification is the aggregate of the following indicators: BOD_{5r} , COD_{Cr} , $N-NH_4^+$, $N-NO_3^-$, P_{total} and the saprobic index of macroinvertebrate communities.



Bathing water sites where quality improved from poor in 2014 to sufficient, good, or excellent in 2015; and bathing water sites where quality deteriorated from excellent, sufficient, or good in 2014 to poor in 2015

- EU Member states and other countries with results
- Outside coverage

Bathing waters where quality improved from poor in 2014 to sufficient, good, or excellent in 2015

- Excellent water quality
- Good water quality
- Sufficient water quality

Bathing waters where quality deteriorated from sufficient, good, or excellent in 2014 to poor in 2015

- Poor water quality

Challenges Remaining

Water Quality

Further investment is needed in the fields of sewerage, wastewater treatment, and water supply

Waste Disposal

Landfills are the central means of waste disposal in the Czech Republic

- Recycling
- Minimize the pollution to water
- Transportation of waste

Ecological Protection

Protection and strengthening of the ecological landscape

As seen in the case of the Bilina River, decreasing water quality can be detrimental to an ecosystem

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