

**Module 5.03.04 : Environmental accounts and environmental
expenditure statistics – Data Centres:
“National Resources” and “Products” – Environmental Tax**

FINAL TECHNICAL REPORT

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Note:

- *The symbol of dash (-) in place of figure indicates that the phenomenon did not occur*
- *The symbol of 0 or 0.0 in the table is used to designate numeral data smaller than half of the unit of measure chosen*
- *The symbol of dot (.) shows that figure is not available or cannot be relied on*
- *The symbol of small cross (x) shows that entry is impossible for logical reasons*
- *i.d. – Individual data*

Table of contents

1. Introduction	4
2. Timetable	8
3. Goal of the Project	8
4. Data Compilation Methodology	9
4.1. Energy Taxes	11
4.2. Pollution Taxes	11
4.3. Resource Taxes	15
4.4. Transport Taxes	18
4.5. ŽP1-01 survey	20
5. Conclusion	22
6. References	23
7. Annexes	24

1. Introduction

Environmentally Related Tax Issues in the EU

Environmental protection issues have always had a certain level of attention within the European policy. Through the years one can trace the gradually changing intensity of environmental activities as well as their extent, and efficiency of tools used for solving environmental protection problems.

An important milestone of the environmental policy development was the first United Nations Conference on the Human Environment that took place in Stockholm in 1972. A year later the first European Environmental Action Program was started. During the 80's the environmental protection has got on a new level. In 1987 environmental protection was newly introduced as an *activity* by the Single European Act. During that time environmental policy of member countries was based before all on the system of direct administrative tools. Regulations were usually aimed to control emissions and set uniform standards for all polluters regardless the costs each of them had to bear in order to achieve the demanded pollution reduction.

The beginning of 90's introduced other important milestones of environmental protection activities. In 1992 in Rio de Janeiro the so-called Earth Summit took place. There the general action plan for sustainable development in the 21st century (Agenda 21) was accepted. Year after it the Treaty on European Union (the so-called Treaty of Maastricht) defined environmental protection a status of *policy* (in contrast to activity it used to be before). Due to the statement that environmental interests should be considered along with development and realization of other policies, environmental policy has acquired a cross-sectional character. The Treaty of Amsterdam of 1997 has announced the sustainable development as one of the key and priority goals of the European Communities. Its principles for the next 10 years were defined in the so-called Lisbon Strategy that was accepted by the European Council in 2000 (with environmental pillar additionally added in Göteborg in 2001).

During the last decades the role of the so-called *economic* tools of environmental protection is being actively highlighted. They are gradually either replacing or complementing direct administrative tools within the framework of tool mixes. The economic tools are generally considered to be more efficient. Market conformity and higher efficiency (the so-called static and dynamic efficiencies) for environmental goals achievement belong among their main strengths. In contrast to direct regulation they apply price mechanisms to achieve environmental objectives by placing financial burden on polluting activities of economic agents, or vice versa stimulating environmentally beneficial behaviour. One can distinguish between the following functions:

- *internalization* – economic tools enable incorporating at least part of negative externalities in the costs of polluter;
- *stimulation* – economic tools stimulate polluters to decrease pollution level or resource consumption. This stimulation can simultaneously create pressure on development of environmentally friendly technologies and innovations;
- *fiscal* – revenues may be used as a supplementary source of financing;
- *levelling* – economic tools levels diverse economic conditions of polluters due the previous development or normative tools' effect; and
- *redistribution* – the situation when economic tool changes or reduces financial impact on different branches, social groups, etc.

These characteristics of economic tools form the basis for the so-called environmental tax reform that is currently discussed and developed at the international level. In addition to e.g. tradable permits and environmental subsidies this reform also incorporates issues of *environmental taxes*.

The 6th Environment Action Program of the European Community explicitly declares that promotion of environmental goals requires relevant, transparent, up-to-date and easily understandable information to policy makers, stakeholders and the general public. These requirements not only follow the Lisbon Strategy that was developed till 2010, but also correspond to the new European economic strategy named "Europe 2020".

Requirements to information support of decision making process within the environmental fiscal reform are connected with requirements for high quality and relevant statistical data. Eurostat in this respect supports

initiatives of single member countries to develop satellite accounts in monetary units including environmental protection expenditure and environmental taxes data among others. The demand for these data is stimulated by numerous factors. They are:

- the need for structured statistics for the purposes of environmental tax reform process support,
- the need to assess the role of environmental taxes within the structure of member states' tax systems,
- the need to quantify the impact of single environmental taxes on the environmental quality,
- the need to quantify the impact of environmental taxes on price relations and national economies' structure, and
- the need of international comparisons in the environmental sphere among others.

The following report represents the pilot results of the project of the Czech Statistical Office aimed at mapping environmental taxes in the Czech Republic.

Environmentally Related Tax Issues in the Context of the Czech Republic

The development of the environmental policy in the conditions of the Czech Republic reflects the overall development characteristic for initial EU member states. The main difference is that this development has de-facto started several decades later. Intentions to solve environmental problems before the year 1989 can be traced based on the environmentally motivated legislative acts of the 50's focused on water, land, forests and mineral resources among others. In the 60's the air protection legislation came into being. In the 70's the water law has passed. In the 80's the "Distant Interstate Air Pollution Agreement" has been signed. However with a view to peculiarities of centrally planned economy mechanisms, proprietorship structure and prevailing political priorities environmental problems were underestimated on the long-time basis and therefore didn't get relevant attention (see e.g. Ritschelová a kol., 2006 for details).

One should mention that in the conditions of the Czechoslovakia collection of fees from producers and final consumers was a traditional and well-worked part of environmental protection economic tools' mix. For instance, air pollution fees were introduced in 1967; fees for discharging wastewaters into surface water were introduced in 1966. However, as it was mentioned above, those were quite insignificant in conditions of the centrally planned economy.

In relation to consequent novelization of environmental legislation in 1989 one can see the gradual extension of pollution sources, increase of number of polluting substances and changes of respective fee rates. The transformation period was accompanied by actions aimed at improvement of environmental situation, since in the beginning of the 90's it was among the most problematic in the Central Europe. In this respect several environmentally motivated laws were introduced in 1990-1992 that had different impact on economic structure and environmental quality. As in case of the vast majority of the European countries national environmental policy strategy was initially almost entirely based on normative tools. These tools enabled reaching necessary environmental quality level through restructuring and elimination of certain activities as well as implementation of the new end-of-pipe and integrated technologies.

Along with these processes the tax system of the newly created state has been developing. In 1991 the law on air protection came into force. It has set fee rates for air pollution among others. In 1992 the law on excise duties that generally belong to the most important environmental taxes was introduced. Additionally one can mention the law on agricultural land fund protection. In the next several years laws on road tax, forest law setting charges for the withdrawal of forest land, or e.g. ozone layer protection law passed.

Step by step the direct regulation became more static, inflexible and economically inefficient. It didn't motivate parties involved to decrease the legislatively stipulated pollution limits and furthermore was connected with high administrative costs. It has come to understanding that in number of cases it would have been more efficient to internalize ecological requirements into decision making processes on the basis of economic tools in the first place. One of the steps connected to environmental taxes was gradual actualization of environmental taxes' and fees' rates. Concerning the environmental fiscal reform some intentions to introduce the environmental tax law have appeared in the end of the 90's. Political consensus however was achieved only in 2008. As a formal reason for environmental tax reform one can name the

implementation of requirements of the European Council¹ to harmonize minimum payments for electricity and energy with the European level and also support of environmentally friendly behaviour within the national legislation.

According to Principles and program of environmental tax reform (MŽP ČR, 2007) the Czech environmental tax reform should be implemented within the three phases. During the first phase (2008–2010) the so-called environmental taxes (tax on natural gas and some other gases, tax on solid fuels, and tax on electricity) were newly introduced in the Czech Republic.² Within the second phase that was planned for 2010–2014 further taxation of energy products (natural gas before all), environmental tax rates differentiation with a view to their environmental and health impacts and environmental fee system revision were expected. The third phase (2015–2017) assumes introducing further taxes on other natural resources, products and services.³

Environmental Tax Definition

Tax is defined as a mandatory uncompensated payment to the state (either monetary or *in natura*). *Environmentally related tax* means a tax whose tax base is a physical unit (or a proxy of it) of something that has a proven, specific negative impact on the environment, whereby only transactions identified by the national accounts as a tax are to be included (see EC, 2010b). Environmental taxes include both taxes that were introduced with the specific environmental purpose, as well as taxes influencing the environmental quality whose introduction was motivated by fiscal rather than environmental purposes (e.g. road tax).

Environmental taxes may be classified within one of the following groups:

- *energy taxes* are taxes connected to energy products used for both transport (petrol and diesel) as well as stationary (fuel oils, natural gas, coal and electricity) purposes; with a view to close connection to energy taxes the CO₂ taxes are also included here,
- *transport taxes* are related to the ownership and use of motor vehicles (excluding energy taxes),
- *pollution taxes* are derived from measured or estimated emission to air and water, management of solid waste and noise (except for CO₂ taxes),
- *resource taxes* are connected to natural resource extraction.

With a view to the fact that tax systems, names and concepts of taxes (event. fees, charges, etc.) may differ from country to country, number of methodological and analytical works have been done (see e.g.. Eurostat, 2001, Steinbach et al., 2009). It has been agreed that for the purpose of environmental tax identification tax basis relation to environmental quality and the way the tax influences price relations and consequently economic agents' behaviour should be analyzed. This is the reason why all energy and transport related taxes (or fees) fall into environmental tax group. On the contrary the Value Added Tax is excluded since it is levied on all goods and services and therefore influences price relations only to a limited extent.

In the Czech conditions the difference between taxes and fees are may be explained as follows. *Tax* is a mandatory, legislatively levied payment to the public budget that is non-purpose-built, non-equivalent, irrecoverable and iterative. The fact that taxes are non-purpose-built and non-equivalent justifies that economic agent doesn't receive any value back. Even through the fact that economic agent uses state services they are in no way equivalent to the paid amount of money. *Fee* is a mandatory, legislatively levied payment to the public budget that is non-purpose-built, equivalent and incidental. The fee revenue is not necessarily earmarked for specific use. After payment the economic agent receives the concrete value (service), the fee however must not necessarily reflect the real cost of the service received.

In some cases it is hard to make a distinction between taxes and fees introduced within the national tax system. This is also the case for the environmental taxes. For statistical purposes it is necessary to hold on to principles described in the SNA. The SNA 2008 describes the cases when an agent receives a value (e.g. a license or other certificate) against fee payment and issue of such licences involves little or no work on the part of government. In this case it is likely that the aim of the fee is to simply raise revenue into budget, and

¹ Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity.

² Act No. 261/2007 Sb. on public budget stabilization.

³ One should state however that with a view to world economic crisis and public budget reforms by the government it is quite unlikely that the development would follow the initial program.

therefore this payment is rather a tax than a fee. However, if the government uses the issue of licences to exercise some proper regulatory function (e.g. checking the competence, checking the equipment etc.) the payments made should be treated as fees, i.e. as purchases of services from government (see EC et al., 2008, par. 7.80 for details).

For the practical reasons in order to provide SNA compatibility, consistency and international data comparability Regulation of the European Parliament and of the Council on European Environmental Economic Accounts includes only taxes identified in ESA 95 within the following categories (see EC, 2010b):

- Taxes on production and imports (D.2),
- Current taxes on income, wealth, etc. (D5), and
- Capital taxes (D91).

The majority of environmental taxes is concentrated within taxes on production and imports. One should also mention that category D.29 *Other taxes on production* explicitly includes pollution taxes among others. These include taxes levied on emission or exhalation of polluting gases, liquids or other polluting substances into the environment.

2. Timetable

1. Project preparation, study of methodology – January to April 2009.
2. Identification of relevant data sources for compilation of environmental tax accounts – March to June 2009.
3. Methodological problems' consulting with respective experts and organizations – March 2009 to January 2010.
4. Workshop in Bratislava – June 2009.
5. Collection of data necessary for environmental tax accounts' compilation – May 2009 to August 2010.
6. Progress report preparation – December 2009 to January 2010.
7. Acquired data adjustment and analysis – July 2009 to October 2010.
8. Preparation of project outcomes including final report – August 2010 to January 2011.

3. Goal of the Project

The main goal of the project is to find data sources for sectoral breakdown of environmentally related taxes and fees as it is proposed by the so-called Standard Tables developed by Eurostat Environmental Accounts Working Group. Eurostat requires yearly compilation of these tables by Member States of the European Union based on gentlemen's agreement. Environmental taxes form one of the modules of the currently discussed regulation of the European Parliament and of the Council on European environmental economic accounts.

These taxes and fees have to be defined according to ESA 95 requirements. The definition is based on such publications as SEEA (United Nations et al., 2003) and Environmental taxes – a statistical guide (Eurostat, 2001).

The required time series start in 1995 and currently end in 2008. Environmental taxes and fees can be divided into 4 categories:

Energy taxes,

Pollution taxes,

Resources taxes,

Transport taxes.

In the Standard tables each category of enterprises and governmental institution is broken down by NACE Rev. 1.1 (prevailing 2-digit). Furthermore data are allocated between households and non-residents. In case no allocation is possible non-allocated category is used. The above mentioned regulation requires breakdown of enterprises and governmental institutions by NACE Rev. 2 at A*64 aggregation level.

It is necessary to analyze the identified data sources, compare their credibility, and consequently use the most reliable one within the project.

4. Data Compilation Methodology

The following chapter describes an approach used for project solution. First the list of environmentally related taxes and fees was created. This was made in close cooperation with environmental law experts from the Charles University Environment Centre. Based on the definition of environmentally related taxes⁴ these experts have identified all taxes and fees valid in 2006 that were related to the environment. After that they created the so-called methodical lists for every tax and fee containing the following attributes: legal base of the tax or fee, taxpayer, tax collector, payment recipient, etc. These methodical lists are provided in Annex 1 to 4. The year 2006 was chosen as a basic year since at the time of the project beginning Eurostat tables ended in this reporting year. One should notice that three new taxes valid from 1. 1. 2008 were also included into this list. They are namely the so-called ecological taxes including tax on natural gas and some other gases, tax on solid fuels, and tax on electricity introduced within the first phase of the environmental tax reform (see introduction for details).

Consequently identified taxes were broken down into 4 above mentioned categories. Those included the total of 22 items in 2006 and 3 taxes valid from 2008⁵. After that collectors of certain taxes and fees were contacted (e.g. Ministry of Finance, Customs Authority, State Environmental Fund and Czech Mining Authority). They were asked either if they had fee payers' databases or if they could provide data on revenues from fees broken down by classes of economic activities of taxpayers.

In June 2006 the meeting was held with the colleagues from the Slovak Statistical Office in Bratislava. Its main topic was environmentally related taxes and fees. The Eurostat manual and list of environmentally related taxes and fees created by the Charles University Environment Centre were discussed there. For every item of the list respective possible sources were looked for. Possibility of using ŽP1-01 survey results was also discussed. The Czech Statistical Office performs ŽP1-01 survey focused at environmental expenditure since 2003. In 2007 the variable called Environmental fees and payments was introduced. This variable is broken down by CEPA 2002. The survey doesn't cover the whole range of economic activities since it is a sample one. Survey results were first available in September 2008⁶, when data was assessed for the first time. As a result of the meeting it was recommended to continue the started cooperation with tax and fees collectors and to also establish cooperation with national accounts' department. The use of ŽP1-01 was criticized before all due to the fact that this is a sample survey and data structure is not appropriate from the point of view of the project.

Consequently the cooperation with national accounts department of the Czech Statistical Office was established. It was focused at designating environmentally related taxes and fees from the list within the public budget structure⁷. The respective ESA 95 code was also verified since with a view to system of national accounts' compatibility, consistency and international comparability it was decided to include into further processing only those taxes and fees that were designated under D.2, D.5 and D.91 codes within the public budget structure. Some fees defined by Charles University Environment Centre were not found within the public budget structure at all. Some codes didn't correspond to environmental taxes methodology (described in Environmental taxes guide, 2001). Those are e.g. resource fees, waste deposition fees, etc.

As a result of these activities the set of 12 taxes and fees corresponding to environmentally related tax definition were identified. These taxes and fees broken down into categories are as follows:

Energy taxes

Excise duty on mineral oils

Tax on natural gas and some other gases – since 1.1.2008

Tax on solid fuels – since 1.1.2008

Tax on electricity – since 1.1.2008

⁴ *Environmentally related tax' means a tax whose tax base is a physical unit (or a proxy of it) of something that has a proven, specific negative impact on the environment, whereby only transactions identified by the national accounts as a tax are to be included (see Proposal for Regulation of the European Parliament and of the Council on EUROPEAN Environmental Economic Accounts).* One should mention that in this phase of project works the creation of environmentally related taxes' list wasn't limited to those taxes and fees defined as taxes within the national accounts.

⁵ Interim report contained 20 items, however at the beginning of 2010 the list was additionally extended.

⁶ Analysis of data from ŽP1-01 survey is presented in charter 4.5.

⁷ The short version of public budget structure limited to environmentally related taxes and fees is presented in Annex 5.

Pollution taxes

Air pollution fees

Fee for the discharge of waste water into surface water

Fee for the discharge of waste water into ground water

Fees for production and import of ozone depleting substances

Resource taxes

Charge for removal of land from the agricultural land fund

Fee for the withdrawal of forest land

Transport taxes

Road tax

Fee for entry to chosen places on motor vehicle

It was also agreed that national accounts' department would allocate excise duty on mineral oils to NACE classes for the years 1995-2008 and allocate the rest of energy taxes (i.e. tax on natural gas and some other gases, tax on solid fuels, and tax on electricity) to NACE classes for the year 2008. Additionally the total accruals for the whole set of taxes and fees was acquired for period 2006-2008.

During 2009 answers to data requests addressed to chosen organizations were consequently acquired.

Ministry of Finance provided revenues of road tax for 2007 and 2008 broken down by payers (natural persons and legal persons) and by NACE Rev. 2 classes. Those however were not equal to total accruals provided by the national accounts. However based on additional considerations it was decided to use this data (see the further text).

Customs Authority provided data broken down by NACE Rev. 1.1. classes for the following fees: charge for use of mineral water source, charge for withdrawn amounts of ground waters, waste deposition fee, air pollution fee, charge for removal of land from the agricultural land fund, fee for the withdrawal of forest land, fee for the discharge of waste water into surface water for the years 2004-2008. Even through the fact that in 2006 the Customs' Authority information system aimed at administration of excise duties and other fees and support activities connected to penalty collection was launched, the total acquired data didn't correspond to the level of revenues from national accounts. It was decided to use these data for sectoral allocation of the two fees, i.e. charge for removal of land from the agricultural land fund and fee for the withdrawal of forest land, since no other option was identified. For the purposes of allocation of air pollution fee cooperation with experts from Czech Hydrometeorological Institute was established. They have estimated air pollution fees based on reported emissions (see further text). The replacement option was also found in case of fees for the discharge of waste water into surface water. In this case Czech Environmental Inspection provided information on fees stipulated for individual agents.

Czech Mining Authority also provided data on charges for use of mining space area (for 2005) and charges for mineral extraction (1998-2006 time series) broken down by economic classes. These charges however did not meet the requirement of environmental tax definition, according to which the tax should be classified in national accounts as transaction D.45, and therefore were excluded from analysis.

In the end of 2009 national accounts department provided the dataset with tax, fees and social payments' accruals (ESAP2GOV_NTL_A_Quest_95-08_2009.xls⁸). This dataset is being yearly sent to Eurostat and published on DG TAXUD pages. Actual address is:

http://ec.europa.eu/taxation_customs/taxation/gen_info/economic_analysis/tax_structures/article_59_85_en.htm

This dataset contains 1995-2008 time series. Environmental taxes and fees are marked out there including the category specification. All chosen taxes and fees except for fees for production and import of ozone depleting substances were found there. This is how yearly tax accruals for 1995-2008 were acquired.

The following text describes the process of decomposition of individual yearly environmental related tax and fees' accruals. This approach is chosen due to the fact, that data sources were diverse and individual approach to each tax and fee had to be chosen therefore.

⁸ The short version of file limited to environmentally related taxes and fees is presented in Annex 6.

4.1. Energy Taxes

4.1.1. Excise Duty on Mineral Oils, Tax on Natural Gas and Some Other Gases, Tax on Solid Fuels, and Tax on Electricity

Source Data

The following data sources were used:

- data on excise duties on mineral oils accruals from Ministry of Finance for 1995-2008,
- data on tax on natural gas and some other gases, tax on solid fuels, and tax on electricity from Ministry of Finance for the year 2008, and
- 1995-2008 supply and use tables.

Estimation Procedure

First, commodities according to Classification of Product by Activity (CZ-CPA) were assigned to each tax:

- excise duty on mineral oils - CZ-CPA 232,
- tax on electricity - CZ-CPA 401,
- tax on natural gas and some other gases - CZ-CPA 402,
- tax on solid fuels - CZ-CPA 101 and CZ-CPA 102.

Energy taxes are levied on total consumption of these commodities with a few exceptions that are however negligible from the point of view tax revenue level. Next energy taxes based on supply and use tables were allocated to certain uses proportionally to uses in producer prices. The only exception was inventories where energy taxes aren't allocated.

Outcomes

The outcome is a time series of excise duties on mineral oils for 1995-2008 period broken down by economic classes for the whole economy and data on tax on natural gas and some other gases, tax on solid fuels, and tax on electricity for 2008 also broken down by economic classes.

Estimation Shortcomings

Acquired data on energy taxes broken down by NACE Rev. 1.1 represents the best possible estimation that meets all methodological requirements. The only shortcoming is that it is impossible to allocate taxes to more than 2-digit NACE's especially before 2001.

4.2. Pollution Taxes

4.2.1. Air pollution fees

Source Data

The following data sources were used:

- Czech Hydrometeorological Institute data - estimated fees for main polluting substances emitted by single agents for 2001-2008,
- data on total air pollution fee accruals from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset.

Estimation Procedure

In order to estimate fees for single polluting substances experts from Czech Hydrometeorological Institute used information from Register of Emissions and Air Pollution Sources. Through the fact that this register doesn't contain data on levied air pollution fees, it contains reported data on amount of emitted pollutants and pollution source category necessary for fee estimation.

Fee rates for main air pollutants' emission used in this study in some cases didn't change during the whole analyzed period (e.g. suspended particulate matter, sulphur dioxide, nitrogen oxides, CO, hydrocarbons). Since 2002 additional polluting substances were introduced in legislation, i.e. heavy metals and their compounds, ammonia, methane, polycyclic aromatic hydrocarbons. Heavy metals and their compounds' emissions were not considered in our estimations. Cattle related ammonia emissions are not subject to fees since 2002.

Numbers of further polluting substances that have insignificant share in total fee revenues differ before 2001 and after 2002. These were not considered for fee revenue estimations purposes within the whole analyzed period.

Estimation procedure of air pollution fees paid by medium, large and extremely large pollution sources can be described as follows:

1. The fee for chosen polluting substance produced by single extra large, large, or medium stationary source is calculated by multiplying the registered amount of the emitted substance by respective fee rate. According to § 19 art. 8 of Act no. 86/2002 Coll. (for the period since 2002) the fee is levied on polluting substance of the source for which the emission limit was set up or for which at least one requirement regulating substance emission was defined. According to legislation the substance amount is set according to measurement result or upon emission factor-based estimations.
2. The sum of fees for polluting substances forms the fee for single extra large, large, or medium stationary source.
3. The fee for single polluting substances is rounded to integral 100 CZK.
4. Fees under 500 CZK aren't levied.

The following table presents comparison of estimated fees for extra large, large, and medium sources for the given period with data of ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset. One should mention that fees are collected based on previous year emissions (see Estimation Procedure, point 1).

Table 1 Czech Hydrometeorological Institute (CHMI) and national accounts' (NA) data comparison (mil. CZK)

	2001	2002	2003	2004	2005	2006	2007	2008
CHMI	566	588	484	484	492	457	469	496
NA	607	606	589	484	500	474	515	543
CHMI/NA ratio (%)	93,2	97,1	82,1	100,0	98,4	96,4	91,0	91,3

The estimated fees fluctuate in the interval between 91 and 100 percent of fee level reported within the national accounts. The year 2003 is an exception that was probably caused by estimation errors and legislation changes.

Further steps:

- single units were assigned with NACE Rev. 1.1 classes used in national accounts; in case no assignment of class was possible the units were classified upon judgment as household sector or part of not allocated group,
- the percent share of single NACE Rev. 1.1 classes in the total of estimated fee volume was calculated in each year,
- the whole sum of fees in ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset collected by central government institutions was distributed based on calculated shares for single years,
- fees collected by local governmental institutions (i.e. municipalities) were assigned to households' sector since they are collecting fees from small sources and in this case one can assume that polluters are prevalingly represented by households; however it is not possible to classify them either according to households subsectors, or NACE Rev 1.1 classes.

Outcomes

Time series of air pollution fees for the period 2001-2008 for the whole economy in a required structure is a result of these calculations.

Estimation Shortcomings

Acquired data on air pollution fees according to NACE Rev. 1.1 represent only estimations that may differ from reality.

Estimation shortcomings before all consist in the following:

- fees were set based on registered emissions that could cause number of inaccuracies in fee level determination,
- in case of 2001 and 2002 fee estimations simplified procedures were used,
- not all emissions subject to fees were covered,
- fee related to burning or steamy parts of mines or landfills and dumps was also excluded. It is calculated by multiplying the fee rate by the area in m² that is estimated as weighted average of measurements over the reference year.

Conclusion

In order to improve estimation quality and accuracy it is necessary to acquire air pollution fee database from Customs Authority, perform its audit, assign single units with the respective economic class codes used in national accounts and consequently accumulate them in required tables' structure.

4.2.2. Fees for the Discharge of Waste Water into Surface Water and Fees for the Discharge of Waste Water into Ground Water

Source Data

The following data sources were used:

- data of the Czech Environmental Inspection – fees measured for the period 2004-2008,
- data on fees for the discharge of waste water into ground water for 2003-2008 period from Environmental statistical yearbooks of the Czech Republic,
- fees for the discharge of waste water into surface water total accruals from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset.

Estimation Procedure

While allocating fees for the discharge of waste water into ground and surface water we came across several issues.

1. The detailed analysis of ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset has shown that fees for the discharge of waste water into surface water were assigned as local budgets' incomes (since 2000 till present). This is evidently a mistake, since the fee beneficiary is exclusively represented by State Environmental Fund according to Act no. 254/2001 Coll. However these fee sums were applied.

2. Furthermore it was found out that in ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset fees for the discharge of waste water into surface water item in 2004-2007 also contained fees for the discharge of waste water into ground water since the later was very low (under 1 million CZK) during that period. In this respect data from Environmental statistical yearbook of the Czech Republic were used. These fees were subtracted from the total fee sum and assigned to household sector (since these fees are prevailingly paid by households - see methodical list in Annex 2).

3. Time series of fees for the discharge of waste water into surface water and especially into ground water in the 90's significantly fluctuate over time. Under these circumstances we have focused at assigning fees to NACE Rev 1.1 classes before all in 2004-2008 and consequently used average distribution pattern for 2001-2003 allocation.

Further steps:

- single units with fees measured by the Czech Environmental Inspection were assigned with NACE Rev. 1.1 classes used in national accounts; in case no assignment of class was possible the units were classified upon judgment either as household sector or part of not allocated group,
- the percent share of single NACE Rev. 1.1 classes in the total of estimated fee volume was calculated for 2004-2008,
- the whole sum of fees from national accounts adjusted according to above mentioned criteria were distributed based on calculated shares in 2004-2008,
- fees for the discharge of waste water into ground water were allocated to household sector,
- consequently the single NACE classes' and households' averages for 2004-2008 were calculated and applied for 2001-2003 period.

The following table presents comparison of fees levied by the Czech Environmental Inspection with the ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset.

Table 2 Comparison of fees charged by the Czech Environmental Inspection (CEI) and national accounts' data (mil. CZK)

	2001	2002	2003	2004	2005	2006	2007	2008
CEI				392	346	361	321	277
NA	484	487	492	430	383	304	403	242
Fees for the discharge of waste water into surface water ¹⁾								2
Fees for the discharge of waste water into ground water ²⁾			0,292	0,739	1,054	0,47	0,696	2,407

¹⁾ Source: NA

²⁾ Source: Environmental statistical yearbook of the Czech Republic

Outcomes

Time series of fees for the discharge of waste water into surface water and into ground water for the period 2001-2008 in a required structure is a result of these calculations.

Estimation Shortcomings

Acquired data on fees for the discharge of waste water into surface water and into ground water according to NACE Rev. 1.1 represent only estimations that may differ from reality.

Estimation shortcomings before all consist in the following:

- fees were set based on fee rates prescribed by the Czech Environmental Inspection. Reduced rates in case of meeting legislatively set requirements were not considered,
- 2001-2003 fees were estimated based on 2004-2008 averages.

Conclusion

In order to improve estimation quality and accuracy it is necessary to acquire database containing data on paid fees for the discharge of waste water into surface water from Customs Authority, perform its audit, assign single units with the respective economic class codes used in national accounts and consequently accumulate them in required tables' structure. Furthermore it is necessary to acquire data on fees for the discharge of waste water into ground water from local budgets.

Revision is also necessary due to presence of these fees in local budgets and due to significant fluctuations of time series during the 90's.

4.2.3. Further Pollution Fees

The further fee that meets definition of environmentally related tax is a fee for production and import of ozone depleting substances. This fee is collected from producers and importers of these substances. Consumption of these substances is relatively low. Since 1. 1. 1997 their production is prohibited and their consumption is totally covered by import that has to be allowed by Ministry for the Environment. Since the entrance of the Czech Republic into EU on 1. 5. 2004 fee payment conditions have changed. Supply from EU is no longer considered to be imports. In this respect revenues of these fees have decreased significantly and at present approach the zero level. Fee revenues are presented in the following table.

Table 3 Fees for production and import of ozone depleting substances

mil. CZK

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
55,59	50,29	38,92	39,81	37,14	35,41	31,25	41,19	57,86	37,99	13,20	0,10	0,00	0,00	0,00

Source: State Environmental Fund

With a view to the fact that current fee revenue is insignificant and one has no reasons to expect any changes in future, this fee wasn't analyzed any further.

The list of environmental taxes and fees developed by the Charles University Environmental Centre contained five additional fees in this category. These however are not defined as taxes in national accounting. These fees include the following:

- waste deposition fees,
- local fee for operating the system of waste collection, transportation, sorting, reuse, and disposal of municipal waste,
- fee for residential waste,
- payments to a nuclear account ,
- fee for support of collection, processing, reuse and disposal of chosen automobile wrecks.

Fees related to waste including payments to a nuclear account are classified in the national accounting as non-market production (P.131 transaction code). The ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset contains a 642 million CZK revenue of central government institutions from nuclear waste deposition fees in the year 2000 (transaction code D.29, this is an evident mistake however). In 2004 and 2005 it was equal to 1 million CZK, however assigned as a revenue of local governmental institutions. Based on consultation with national accounts department it was concluded that it should be necessary to revise these data.

The assignment of fee for support of collection, processing, reuse and disposal of chosen automobile wrecks was not found within the structure of budgetary incomes. This is probably caused by the absence of fee implementary regulations⁹. In 2006 collection of fee was not specified. Law on waste that forms the legal basis of this fee was novelized in 1. 1. 2009. § 37e of this novel presents the mechanism of collection as well as fee rate. By 31. 12. 2009 the State Environmental Fund registered 670 million CZK revenue of this fee. With a view to the fact that the revenue level in the first year is quite significant, one could expect that a respective code for 2009 would be assigned within the budget structure and ESA and that it would be possible to decide, whether this fee conforms the environmentally related tax definition or not.

The list of environmental taxes and fees of the Ministry for the Environment also includes Package registration and License fee that belongs to the field of waste management. This fee is also present in ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset assigned with D.29 transaction code. However it is not marked as environmental. The first revenue of this fee was registered in 2003, in 2004 it has reached 19 million CZK level. However in 2006 the fee is absent. In 2007 and 2008 it again reaches the level of 20 million CZK. With a view to non-uniform development of revenue of this fee it is necessary to make revisions and consider assignment of this fee to the category of environmentally related taxes and fees.

4.3. Resource Taxes

4.3.1. Charges for Removal of Land from the Agricultural Land Fund

Source Data

The following data sources were used:

- data on charges for removal of land from the agricultural land fund aggregated by NACE Rev. 1.1 classes in 2006-2008 acquired from Customs Authority both charged and paid,

⁹ Methodical lists present the state in 2006.

- data on total charges for removal of land from the agricultural land fund accruals from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset.

Estimation Procedure

As it was already mentioned in 2006 the Customs' Authority information system was launched. Data on charges and payments for removal of land from the agricultural land fund was exported from it. The following table presents comparison of charges and payments from Customs Authority records and data from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset for 2006-2008.

Table 4 Comparison of Customs Authority (CA) and national accounts' (NA) (mil. CZK)

	2006	2007	2008
CA - charge	351,62	176,13	240,19
CA - payment	350,60	175,14	238,43
NA	424,00	406,00	392,00
charge/NA ratio (%)	82,93	43,38	61,27
payment/NA ratio (%)	82,69	43,14	60,82

As one can see from the table levels of charges and payments in 2007 compared to national accounts' data are very low. For the project purposes only years 2006 and 2008 were considered therefore. Since charges were closer to national accounts' data, structure of charges in 2006 and 2008 was used for distribution of charges by NACE classes.

Further steps:

- aggregation of single charges for 2006 and 2008 at the two-digit NACE Rev. 1.1 class level,
- calculation of the percent share of single NACE Rev. 1.1 classes in the total of charges for 2006 and 2008,
- the residual from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset (sum for 2006 and 2008) was assigned to households upon consultations with experts from Customs Authority,
- totals from national accounts were distributed by using the estimated shares for 1995-2008 because the legal act regulating charge collection haven't changed since July 1992 (§ 11 of Act. no. 334/1992 Coll., on agricultural land fund protection).

Outcomes

Time series of charges for removal of land from the agricultural land fund for the period 1995-2008 in a required structure is a result of these calculations.

Estimation Shortcomings

Acquired data on charges for removal of land from the agricultural land fund represent only rough estimations that may differ from reality especially in the first years of time series.

Estimation shortcomings before all consist in the following:

- Data from Customs Authority cover only two years. Average for these two years was applied for distributing charges among NACE classes for the whole time series. Data for the rest of time series was either unreliable or missing.
- Data on charges for removal of land from the agricultural land fund by NACE Rev. 1.1 classes reflect classes reported by economic agents; this however may differ from their class assignment in national accounts.

Conclusion

In order to improve estimation quality and accuracy it is necessary to acquire database containing data on charges for removal of land from the agricultural land fund from Customs Authority, perform its audit, assign single units with the respective economic class codes used in national accounts and consequently accumulate them in required tables' structure.

4.3.2. Fees for the Withdrawal of Forest Land

Source Data

The following data sources were used:

- data on fees for the withdrawal of forest land, both charged and paid, aggregated by NACE Rev. 1.1 classes in 2006-2008 acquired from Customs Authority,
- data on total fees for the withdrawal of forest land accruals from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset.

Estimation Procedure

As it was already mentioned in case of the above charge in 2006 the Customs' Authority information system was launched. Data on charged and paid fees for the withdrawal of forest land was acquired from it. The following table presents comparison of charges and payments from Customs Authority and data from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset for 2006-2008.

Table 5 Comparison of Customs Authority (CA) and national accounts' (NA) (mil. CZK)

	2006	2007	2008
CA - charge	61,46	57,63	53,11
CA - payment	60,64	52,73	51,75
NA	93,00	63,00	54,00
charge/NA ratio (%)	66,09	91,48	98,35
payment/NA ratio (%)	65,20	83,70	95,84

As one can see from the table the level of charges and payments in 2006 compared to national accounts' data is very low, therefore for the project purposes only years 2007 and 2008 were considered. Since charges were closer to national accounts' data, structure of charges in 2007 and 2008 was used for distribution of fees by NACE Rev. 1.1 classes.

Further steps:

- aggregation of single fees for 2007 and 2008 at the two-digit NACE Rev. 1.1 class level,
- calculation of the percent share of single NACE Rev. 1.1 classes in the total of fees for 2007 and 2008,
- the residual from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset (sum for 2007 and 2008) was assigned to households upon consultations with experts from Customs Authority,
- totals from national accounts were distributed by using the estimated shares from 1995-2008 since the legal act regulating fee collection haven't changed since 1996 (§ 17 of Act. no. 289/1995 Coll., on forests).

Outcomes

Time series of fees for the withdrawal of forest land for the period from 1996 (year when the fee was introduced) to 2008 in a required structure results from these calculations.

Estimation Shortcomings

Acquired data on fees for the withdrawal of forest land represent only rough estimations that may differ from reality especially in the first years of time series.

Estimation shortcomings before all consist in the following:

- Data from Customs Authority cover only two years. Average for these two years was applied for distributing fees among NACE classes for the whole time series. Data for the rest of time series was either unreliable or was missing.
- Data on fees for the withdrawal of forest land by NACE Rev. 1.1 classes reflect classes reported by economic agents; this however may differ from their class assignment in national accounts.

Conclusion

In order to improve estimation quality and accuracy it is necessary to acquire database containing data on fees for the withdrawal of forest land from Customs Authority, perform its audit, assign single units with the respective economic class codes used in national accounts and consequently accumulate them in required tables' structure.

4.3.3. Other Resource Fees

The following fees and charges could also be considered as environmentally related resource taxes:

- charge for use of mineral water source,
- charges for withdrawn amounts of ground waters,
- charge for use of mining space area,
- charge for mineral extraction,
- fee for the right of performing the deposit survey,
- charge for water courses and river basins management¹⁰.

These fees partially satisfy environmentally related tax definition. However according to ESA 95 these fees are mainly assigned within D.45 category. Furthermore charges for water courses and river basins management are actually payments to state enterprises rather than direct payments to governmental institutions' budgets.

Yearly revenues of these fees are presented in the following table.

Table 6 Other resource fees

mil. CZK

	2003	2004	2005	2006	2007	2008
charge for use of mineral water source ¹⁾	6	7	8	7	8	8
charges for withdrawn amounts of ground waters ³⁾	626	827	828	768	711	764
charge for use of mining space area ²⁾	22	22	21	16	15	15
charge for mineral extraction ²⁾	507	540	593	613	658	674
fee for the right of performing the deposit survey
charge for water courses and river basins management ³⁾	2 262	2 303	2 333	2 486	2 575	2 679

¹⁾ source: www.info.mfcr.cz/cgi-bin/aris

²⁾ source: Czech Mining Authority

³⁾ source: Environmental statistical yearbook of the Czech Republic

4.4. Transport Taxes

4.4.1. Road Tax

Source Data

The following data sources were used:

- data from the Ministry of Finance on road taxes paid by natural and legal persons in 2008 broken down by NACE Rev. 2 economic classes (NACE codes reported in income tax returns of legal and natural persons),
- data on road tax accruals for single years,
- data from P 5-01 surveys for 2008, item "Taxes and Fees" (part A025, row 18) broken down by NACE Rev. 2 and NACE Rev. 1 economic classes.

¹⁰ Includes charges for surface water withdrawn from water course managed by state enterprises. State enterprise is an enterprise established by the state or that are its organization part based on founder's deed. State enterprises are normally established due to strategic reasons; i.e. when the state is unwilling to pass key economic sectors into private sector (e.g. telecommunications, transport or energy).

Estimation Procedure

Source data from available surveys were used for creation of NACE Rev. 2 x NACE Rev. 1 conversion matrix containing indicators of taxes and fees from P 5-01 survey for single combinations of NACE Rev. 2 and NACE Rev. 1. The reason for that was to assign NACE Rev. 1 economic class codes to data of Ministry of Finance (since available data had NACE Rev. 2 structure).

Based on this conversion matrix vector of values of paid road tax from Ministry of Finance broken down by NACE Rev. 2 classes was converted to vector of values broken down by NACE Rev. 1.1 (especially for natural persons). Road tax vector by legal persons was allocated to sector S.11 – non-financial corporations (eventually S.12 – financial corporations and S.13 – general government, for NACE Rev. 1.1 classes not present in S.11 sector) and natural persons' vector was allocated to S.14 sector of households.

Since road tax paid total from Ministry of Finance broken down by NACE classes was not equal to 2008 tax accruals, and also due to the fact that in P 5-01 source data not all NACE Rev. 2 classes present in Ministry of Finance data were identified, the total of acquired data is not equal to road tax accruals. That is why the estimated vectors broken down by NACE Rev. 1.1 were used as distribution key of road tax accrual for 2008.

Methodology for Year 2008

The estimated vectors of paid road tax by NACE Rev. 1.1 classes in S.11 non-financial enterprises and S.14 households sectors were compared with source data from D.29 Other taxes on production group from P 5-01 survey containing road tax among others. Concerning classes where estimated tax level was significantly higher, the tax value was reduced and the difference was distributed among the similar economic classes. Concretely speaking it was NACE Rev. 1 group 511 Wholesale on a fee or contract basis and 930 Other service activities. In case of NACE classes where estimated tax level was slightly higher than D.29 data, source data was adjusted to fit road tax accruals.

Time Series

1995-2007 time series is based on resulting road tax vectors for 2008 (for non-financial enterprises and household sectors). One should mention that Ministry of Finance data for paid road tax for 2007 broken down by NACE Rev. 2 classes was also available. However it was significantly different from 2008 data in case of some NACE classes. That is why it was hard to define, what data to use for the whole time series. For better comparability only 2008 source data on paid road tax according to NACE Rev. 2 classes was used.

In case of earlier years data on paid D.29 Other taxes on production by NACE classes had to be considered. It was used for setting limits for estimations of paid road tax by single sectors, i.e. S.11 – Non-financial corporations and S.14 – households.

Value of road tax accrual for single years was distributed among S.11 and S.14 sectors and single NACE classes proportionally to results of 2008. Resulting values were compared to D.29 data. In case of NACE classes where road tax was higher than in D.29, road tax was reduced. Accumulated difference from road tax accruals was consequently distributed among those NACE classes, where estimated road tax was lower than that published in D.29, based on ratio of D.29 difference to estimated road tax.

Outcomes

Finally estimated road taxes for S.11 and S.14 sectors were summed up. Time series of road taxes broken down by NACE Rev. 1.1 codes (128 classes) for the whole economy result from these calculations.

Estimation Shortcomings

Acquired data on road taxes paid by single NACE classes represent only rough estimations that may differ from reality especially in the first years of time series. Estimation shortcomings may be explained by the following facts:

- the used data on paid road tax is related to one year only, data for previous years was not available,
- data on paid road taxes according to NACE Rev.2 are based on NACE codes reported by economic agents in tax returns. This however may differ from their NACE classification in P 5-01 survey serving as a data source for national accounts,
- NACE Rev.2 and NACE Rev.1.1 classifications aren't mutually convertible,

- road tax estimations are limited to D.29 data.

In order to improve estimation quality and accuracy it is necessary to acquire database containing data on road tax from Ministry of Finance (with corrected errors and other shortcomings) and interrelate it with Register of Economic Agents (NACE Rev. 1.1) for each single year of time series. Additionally it would probably be necessary to change D.29 estimations of uses for single sectors and NACE classes based on this information while revising national accounts' time series.

4.4.2. Fee for Entry to Chosen Places on Motor Vehicle

Source Data

The following data sources were used:

- accruals of fees for entry to chosen places and city districts on motor vehicle from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset.

Estimation Procedure

Fee for entry to chosen places and city districts on motor vehicle in ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset is divided into 2 tax groups:

- D.29 – Other taxes on production,
- D.59 – Other current taxes.

For the project purposes data from D.59 was allocated to households. In case of data from D.29 an appropriate distributional key was not defined. That is why the whole sum was assigned to not allocated item. This approach was used for the whole 1995-2008 time series.

Estimation Shortcomings

Acquired data represent only rough distribution of fees for entry to chosen places and city districts on motor vehicle between enterprises and households. With a view to fee nature one should expect that part of it is paid by non-residents. Since in 1995-2008 this fee has 0.03-0.1 percent share within the total of environmentally related taxes and fees, the further distribution of this fee among NACE classes seems to be irrelevant.

4.4.3. Other Transport Taxes

As additional fee to be included into transport tax group was a fee for the use of highways and speedways. As one can see from ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset this fee was established in 2003. Since 2004 this fee was assigned to P.111, i.e. as market production.

4.5. ŽP 1–01 Survey

The Czech Statistical Office has been performing ŽP1-01 survey of environmental expenditures since 2003. In 2007 the variable Environmental fees and payments was additionally introduced there. Respondents had to report fees and payments that were environmentally related or connected with natural resource rights (i.e. charges for withdrawn amounts of ground waters, charges for withdrawn amounts of surface waters, charges for removal of land from the agricultural land fund, fees for the withdrawal of forest land, charges for use of mining space area, charges for mineral extraction, fees for timber felling, nature use fees) and environmental pollution charges (i.e. air pollution fees, fees for the discharge of waste water, waste deposition fees, waste incineration fees, noise fees, administrative and local pollution fees). Penalties for breaking the environmental legislation and rules were excluded. The first survey results were available in 2008.

This variable is structured based on CEPA 2002 classification. Based on survey results' analysis methodical notes concerning assignment of single fees to CEPA 2002 domains were extended for 2009 reporting year as follows:

- protection of ambient air and climate – air pollution fees,
- waste-water management - fees for the discharge of waste water into surface or ground water,
- waste management - waste deposition fees and waste incineration fees,
- protection and remediation of soil, groundwater and surface water - charges for withdrawn amounts of ground waters, charges for withdrawn amounts of surface waters, charges for removal of land from the agricultural land fund,
- noise and vibration abatement - noise fees,
- protection of biodiversity and landscapes - fees for the withdrawal of forest land, charges for use of mining space area, charges for mineral extraction, fees for timber felling,
- other environmental protection activities - payments to a nuclear account.

Furthermore reporting units could separately state all other administrative and local fees related to environment as well as road tax.

This statistical survey is a sample one, so it doesn't cover the whole range of economic activities. In 2007 the questionnaire was sent to chosen economic agents (according to NACE rev. 1.1 classes 01, 02, 05, 10-40, 41, 60 and 62 with 20+ employees and NACE 37 and 90 regardless number of employees), municipalities with 500+ inhabitants, budgetary organizations and state funds.

In 2008 NACE Rev. 1.1 classification was replaced by NACE Rev. 2 classification. Furthermore with a view to administrative burden decreasing policy sample limits were changed. According to the new criteria ŽP 1-01 survey covers chosen units from such NACE Rev. 2 classes as 01, 02, 03, 05-33, 35, 36, 49, 51, 52, 58 with 50+ employees and CZ-NACE 37, 38, and 39 regardless number of employees, municipalities with 500+ inhabitants, budgetary organizations and state funds.

While solving this project it has come to conclusion that the majority of fees surveyed in ŽP 1-01 do not match the environmentally related taxes definition, especially requirement of being defined as tax within national accounts. Other fees that meet this definition, e.g. charges for removal of land from the agricultural land fund and fees for the withdrawal of forest land are aggregated in CEPA 2002 domains with other fees and it is impossible to decompose them. Exceptions are air pollution fee and fees for the discharge of waste water into surface or ground water. Because sums of fees from ŽP1-01 and other sources did not match fee levels from national accounts, shares of fees by NACE classes on total fee data acquired from other sources were chosen for the purposes of comparison. The results of comparison of 2008 percent distribution of air pollution fees' by NACE classes from different sources (i.e. ŽP1-01 survey, Czech Hydrometeorological Institute and Customs Authority) are present in the following table.

Table 7 Air pollution fees in 2008 (%)

NACE	10	11	14	15	17	20	21	23	24	25	26	27	28	29	34	40
ŽP1-01	3,4	3,9	1,0	1,2	1,2	1,0	8,0	1,3	8,5	0,5	6,6	9,0	0,6	0,6	1,4	49,0
CHMI	4,1	0,0	1,4	0,9	0,3	1,1	0,9	0,9	9,4	0,5	4,9	22,4	0,6	0,8	1,3	46,3
CA	2,0	0,0	1,3	1,0	0,4	0,9	0,9	0,7	4,3	1,2	6,1	42,6	1,0	1,1	1,7	29,5

The table contains NACE classes with at least 1 percent share of air pollution fees in 2008 according to at least one available data source. Furthermore, highlighted are those NACE classes where more than 3 percent of fees were allocated according to at least two data sources. As one can see some extent of similarity exists between data sources. However, it is impossible to define which of sources has a higher quality. While solving the project we have used data on air pollution fees of the Czech Hydrometeorological Institute based on emission records. The fact that the same expert team fills out air emission tables for Eurostat is one of the reasons for that. The argument against using ŽP1-01 is that the survey is a sample one, even through the fact, that according to other sources not limited by sampling all significant payers are included there. However in case of obligatory European environmental economic accounts' regulation, that is currently being approved, these data would rather be acquired from Customs Authority, that is in charge of collection and administration of these fees.

We have consequently compared distribution of fees for the discharge of waste water into surface water by NACE classes from different ŽP1-01 survey and Czech Environmental Inspection. The following table contains NACE classes with at least 1 percent share of fees according to at least one data source. Highlighted are those NACE classes where more than 3 percent of fees were allocated according to at least one data source.

Table 8 for the discharge of waste water into surface water in 2008 (%)

NACE	15	17	21	23	24	26	27	32	34	40	41	75	90
ŽP1-01	2,1	1,9	6,3	2,5	17,7	1,4	1,9	7,9	1,3	13,5	32,2	1,0	5,2
CEI	1,4	0,6	14,3	0,2	18,4	0,4	1,3	0,0	0,1	5,5	40,1	1,2	13,9

Even through the fact that ŽP1-01 is a sample survey all significant payers are included (according to other source not limited by sampling). Data on fees for the discharge of waste water into surface water was also available from other source, i.e. Customs Authority responsible for fee collection. However this source was not usable at all, since its data didn't correspond to fee accruals from national accounts. While solving the project, data from the Czech Environmental Inspection was used (see chapter 4.2.2).

ŽP1-01 survey is not appropriate for road tax allocation since it doesn't cover all NACE sections, especially construction, retail, real estate, entrepreneur activities, etc. These include classes that according to expectations should pay road tax. This fact was proved while allocating road tax to NACE classes (see chapter 4.4.1).

One can conclude that with the help of ŽP1-01 it is possible to acquire distribution by NACE classes only in case of two fees from pollution category. Since 2002 these two fees have around 2 percent share (in some years 1 percent share) in total environmentally related taxes and fees, it is necessary to consider the complete methodological change of Environmental fees and payments item of ŽP1-01 survey or even its complete exclusion and substitution by the data on taxes and fees acquired from other sources.

5. Conclusion

The final project results are presented in Annex 7 in .xls format. Each environmentally related tax category contains 1995-2008 time series broken down by NACE classes. The exception is pollution taxes category where 2001-2008 time series are present. In order to solve the project eleven environmentally related taxes and fees were analysed. 4 items were identified in energy taxes category, 3 items in pollution taxes category and 2 items in resource taxes and 2 items in transport taxes categories under conditions of the Czech Republic. Each tax or fee was analysed separately since the used source data was very heterogeneous. One should also mention that surrogate data was used in the majority of cases since no better data sources were available at the moment of project solution. Energy taxes are an exception. Their distribution by NACE classes was based on supply and use tables and therefore meets all methodological requirements. With a view to expected Regulation of the European Parliament and of the Council on European Environmental Economic Accounts containing environmentally related tax module negotiations with respective institutions in the Czech Republic performing tax collection from economic agents have started already.

While solving the project additional environmentally related fees were identified in the Czech Republic that however either aren't classified by ESA 95 as taxes or aren't present in tax list (ESAP2GOV_NTL_A_Quest_95-08_2009.xls dataset) and therefore aren't considered as environmental taxes.

The project also showed that Environmental fees and payments variable from ŽP1-01 survey is not appropriate for the purposes of this project. There are several reasons for that. First, this survey is a sample survey so not all NACE economic classes are covered. Furthermore fees are broken down by CEPA 2002 and not according to tax categories. Additionally not all fees from this survey match the environmentally related tax definition.

One can conclude that project goals were completed – environmental taxes and fees were identified within the conditions of the Czech Republic, data sources were found and Eurostat tables of environmentally related tax revenues broken down by economic activity classes were completed. It is expected that the result of the above mentioned negotiations with environmentally related taxes' and fees' collecting institutions would be signing agreements on regular source data transfers for filling out Eurostat tables. The consequent goal would be providing access to data on environmentally related taxes for potential users.

6. References

1. EC, IMF, OECD, UN, WB. *System of National Accounts 2008*. New York: EC, IMF, OECD, UN, WB, 2009.
2. EC. *Hodnocení Lisabonské strategie*. Brusel: Evropská komise, 2010a.
3. EC. *Proposal for a Regulation of the European Parliament and of the Council on European Environmental Economic Accounts - Revised Presidency compromise text*. Brussels: Council of the European Union, 2010b.
4. ECOTEC. *Study on Environmental Taxes and Charges in the EU*. Brussels: Ecotec, 2001.
5. EUROSTAT. *Environmental taxes — A statistical guide*. Luxembourg: Eurostat, 2001.
6. EUROSTAT. *Evropský systém účtů ESA 1995*. Luxemburk: Eurostat, 1995.
7. MŽP ČR. *Principy a harmonogram ekologické daňové reformy*. Praha: MŽP ČR, 2007.
8. RITSCHELOVÁ I. a kol. *Politika životního prostředí. Vybrané kapitoly*. Ústí nad Labem: Univerzita J. E. Purkyně v Ústí nad Labem, 2006.
9. RITSCHELOVÁ, I. a kol. *Dopad poplatků za znečišťování životního prostředí na konkurenceschopnost podniků*. Praha: CENIA, česká informační agentura životního prostředí, 2008.
10. Rozhodnutí Evropského parlamentu a Rady č. 1600/2002/ES ze dne 22. července 2002 o šestém akčním programu Společenství pro životní prostředí. *Úřední věstník* L 242, 10/09/2002 S. 1-15.
11. STEINBACH, N., PALM, V., CEDERLUND, M., GEORGESCU, A., HASS, J. *Environmental Taxes*. Document presented on 14th Meeting of the London Group on Environmental Accounting, Canberra, 27–30 April 2009.
12. TOŠOVSKÁ, E., SIDOROV, E., RITSCHELOVÁ, I., FARSKÝ, M. *Makroekonomické souvislosti ochrany životního prostředí*. Praha: C. H. Beck, 2010.
13. UNITED NATIONS ET AL. *Handbook of National Accounting – Integrated Environmental and Economic Accounting*. ST/ESA/STAT/SER.F/Rev.1 (final draft). 2003.

Annex 1. Energy taxes

Excise duty on mineral oils

Specification	Additional specification	Text		Notes
tax name		Excise duty on mineral oils		
classification (verbal)		energy tax		
legal base (legal act)		Act No. 353/2003 Coll., on excise duties (part two, capitol I)		Numerous novelizations, since 1.1.2008 hydrocarbon gasses subject to tax on natural gas, not to excise duty
taxpayer		final consumer		
payer (if other than taxpayer)		natural or legal person liable for paying tax in relation with releasing the product into free tax circulation		
payment frequency		calendar month (except for import)		
payment recipient		state budget		
tax/fee rate is set by		customs authorities		
tax/fee is collected by		customs authorities		
the tax/fee is exacted by		state budget		
beneficiary		9,1 % of the state gross excise duty on mineral oils revenue is an income of the State Fund of Transport Infrastructure		
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount in 1000 l; amount in tones (in case of heavy furnace oil, hydrocarbon gasses and liquefied petroleum gasses)		
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>			
tax/fee rate	<i>nominal</i>			
		Item	Nomenclature code	Tax rate
		motor gasoline, other gasoline and aviation fuels of gasoline type with lead content less or equal to 0,013 g/l	2710 11	11 840 CZK/1000 l
		motor gasoline, other gasoline and aviation fuels of gasoline type with lead content over 0,013 g/l	2710 11	13 710 CZK/1000 l
		medium oils and heavy gas oils	2710 19 11 to 2710 19 49	9 950 CZK/1000 l
		heavy furnace oils	2710 19 51 to 2710 19 69	472 CZK /t
		waste oils	2710 91 to 2710 99	0 CZK/1000 l
		liquefied petroleum gasses for motor driving		3 933 CZK/t

Annex 1. Energy taxes
Excise duty on mineral oils

Continued

Specification	Additional specification	Text		Notes
		Item	Nomenclature code	Tax rate
		liquefied petroleum gasses for heat production	2712 12 11 to 2711 19	0 CZK/t
		liquefied petroleum gasses for stationary motors and construction works	2713 12 11 to 2711 19	1 290 CZK/t
		carbohydrate gasses for motor driving	2711 11 and 2711 21	3 355 CZK/t
		carbohydrate gasses for heat production	2712 11 and 2711 21	0 CZK/t
		carbohydrate gasses for stationary motors and construction works	2713 11 and 2711 21	387 CZK/t
		diesel mixture (medium and heavy gas oils mixed with fat acid methylesther, where the FAME share is over 30 %)		6 866 CZK/1000 l
exemptions	<i>for products/activities</i>	exemptions (§ 49 of the Act): - mineral oils used for purposes other than motor driving or heat production - waste oils - mineral oils used by producer for production of chosen products (energy products) - mixtures of mineral oils and fermentative spirit used as test fuels within the pilot projects - biodiesel (KN 3824 90 99) - vegetable or animal fats and their fractions (KN 1507 to 1518), taken as biomass, biofuel or renewable source of energy for heat production - mixtures of heavy gas oils with water, with water content from 9 to 15 % of mass share, used as test fuels within the pilot projects		
	<i>for sectors</i>	tax refund to persons using mineral oils for primary agricultural production, forest tree nurseries and forest renewing (§ 57 of the Act) - 60 % in case of medium and heavy gas oils - 80 % in case of mixture diesel		
	<i>for regions</i>			
	<i>for state administration</i>			
	<i>for diplomatic service</i>	tax refund to military forces of other NATO member states, diplomatic missions, consulates, international organizations agencies, EC organs		

Annex 1. Energy taxes
Excise duty on mineral oils

End of table

Specification	Additional specification	Text	Notes
	<i>for export</i>		
		tax exempt for medium and heavy gas oils used for sailing on the tax territory of the Czech Republic except for private recreational sailing	
	<i>for sailing</i>		
		tax exempt for aviation fuels for aviation transport and aviation works except for personal recreational aviation	
	<i>for aviation</i>		
		tax refund to taxpayer (§ 54 of the Act) - in case of mineral oils containing spirit (max. 5 %) tax refund possibility occurs after releasing into free tax circulation and is proportional to share of spirit in the oil - in case of mineral oils containing ethyl tert-butyl ether (ETBE, max 15 %) tax refund possibility occurs after releasing into free tax circulation and is proportional to 45 % share of ETBE contained in mineral oil	
	<i>other</i>		
		partial tax refund in case of use of colored and branded medium and heavy gas (furnace) oils for heat production (§ 56 of the Act), difference between tax rate and refund amount is CZK 660 /1000 l	
tax/fee refund possibility		see above	
lower/upper tax/fee			
subjection bound		-	

Annex 1. Energy taxes

Tax on natural gas and some other gases

Specification	Additional specification	Text		Notes
tax name		Tax on natural gas and some other gases		since 1.1.2008
classification (verbal)		energy tax		
legal base (legal act)		part 45 of Act No. 261/2007 Coll., on public budgets' stabilization		
taxpayer		final consumer		
payer (if other than taxpayer)		end use supplier / distribution system operator / untaxed gas user		
payment frequency		calendar month (taxation period)		
payment recipient		state budget		
tax/fee rate is set by		customs authorities		
tax/fee is collected by		customs authorities		
the tax/fee is exacted by		customs authorities		
beneficiary		state budget		
revenue assignment (incl. partial)		-		revenues are indirectly recycled with the lower social tax payments by employer within the first phase of the ecological tax reform
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount of gas in MWh of heat		
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>			
tax/fee rate	<i>nominal</i>	type of use	rate	
		for stationary motors' driving, for construction works	30,60 CZK/MWh	
		for heat production	30,60 CZK/MWh	
		for motor driving or other purposes	264,80 CZK/MWh	
	<i>effective</i>			

Annex 1. Energy taxes

Tax on natural gas and some other gases

End of table

Specification	Additional specification	Text		Notes
exemptions	<i>for products/ activities</i>	degressive tax decrease for natural gas used for motor driving during 2008 - 2020		
		period	rate	
		2008-2011	0 CZK/MWh	
		2012-2014	34,20 CZK/MWh	
		2015-2017	68,40 CZK/MWh	
		2018-2019	136,80 CZK/MWh	
		since 2020	264,80 CZK/MWh	
		exemptions for gas used: - for household heat production - for electricity production - for combined electricity production in generators with defined minimum efficiency - as a fuel for sailing in the waters of the tax territory except for recreational float - in metallurgical processes - for mineralogical procedures - for other than motor driving or heat production purposes - for technological purposes of fuel producers		
	<i>for sectors</i>	-		
	<i>for regions</i>	-		
	<i>for public administration</i>	-		
	<i>for diplomatic service</i>	tax refund to persons subject to concessions and immunities (diplomatic missions, consulates, international organization agencies, EC organs)		
	<i>for export</i>	-		
	<i>for sailing</i>	see above		
	<i>for aviation</i>	-		
	<i>other</i>	-		
tax/fee refund possibility		see above		
lower/upper tax/fee				
subjection bound		-		

Annex 1. Energy taxes
Tax on solid fuels

Specification	Additional specification	Text	Notes
tax name		Tax on solid fuels	since 1.1.2008
classification (verbal)		energy tax	
legal base (legal act)		part 46 of Act No. 261/2007 Coll., on public budgets'	
taxpayer		stabilization	
payer (if other than taxpayer)		final consumer	
payment frequency		end use supplier / untaxed fuel users	
payment recipient		calendar month (taxation period)	
tax/fee rate is set by		state budget	
tax/fee is collected by		customs authorities	
the tax/fee is exacted by		customs authorities	
beneficiary		state budget	
revenue assignment (incl. partial)		-	revenues are indirectly recycled with the lower social tax payments by employer within the first phase of the ecological tax reform
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount of solid fuels expressed in GJ of heat	
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>		
tax/fee rate	<i>nominal</i>	8,50 CZK/GJ of heat	If heat can not be established, the 33 GJ/t implicit rate is used
	<i>effective</i>		

Annex 1. Energy taxes
Tax on solid fuels

End of table

Specification	Additional specification	Text	Notes
exemptions		exemptions for use of solid fuels: - for electricity production - for combined electricity production in generators with defined minimum efficiency - as a fuel for sailing in the waters of the tax territory except for recreational float - in metallurgical processes - for mineralogical procedures - for coke production - for other than motor driving or heat production purposes - for technological purposes of fuel producers	
	<i>for products/activities</i>		
	<i>for sectors</i>	see above	
	<i>for regions</i>	-	
	<i>for public administration</i>	-	
	<i>for diplomatic service</i>	tax refund to persons subject to concessions and immunities (diplomatic missions, consulates, international organization agencies, EC organs)	
	<i>for export</i>	-	
	<i>for sailing</i>	see above	
	<i>for aviation</i>	-	
	<i>other</i>	-	
tax/fee refund possibility		see above	
lower/upper tax/fee subjection bound		-	

Annex 1. Energy taxes
Tax on electricity

Specification	Additional specification	Text	Notes
tax name		Tax on electricity	since 1.1.2008
classification (verbal)		energy tax	
legal base (legal act)		part 47 of Act No. 261/2007 Coll., on public budgets'	
taxpayer		stabilization	
payer (if other than taxpayer)		final consumer	
payment frequency		end use supplier / distribution system operator / untaxed gas user	
payment recipient		calendar month (taxation period)	
tax/fee rate is set by		state budget	
the tax/fee is collected by		customs authorities	
beneficiary		customs authorities	
		state budget	
revenue assignment (incl. partial)		-	revenues are indirectly recycled with the lower social tax payments by employer within the first phase of the ecological tax reform
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount of electricity in MWh	
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>		
tax/fee rate	<i>nominal</i>	28.30 CZK/MWh	
	<i>effective</i>		

Annex 1. Energy taxes
Tax on electricity

End of table

Specification	Additional specification	Text	Notes
exemptions		exemptions for electricity: - that is environmentally friendly (i.e. generated in solar, wind or geothermal energy, generated in hydro power stations, biomass, methane emissions from closed mines or fuel cells) - produced in vehicles in case it is consumed there - produced from products subject to taxation - for technological purposes necessary for sustaining ability of electricity generation (combined electricity and heat generation) - for compensation of losses in distribution system - for operating railway and railway transport serving for transportation of persons and things on railways, tram and trolley lines - for mineralogical procedures	
	<i>for products/activities</i>	see above	
	<i>for sectors</i>	-	
	<i>for regions</i>	-	
	<i>for public administration</i>	-	
	<i>for diplomatic service</i>	tax refund to persons subject to concessions and immunities (diplomatic missions, consulates, international organization agencies, EC organs)	
	<i>for export</i>	-	
	<i>for sailing</i>	see above	
	<i>for aviation</i>	-	
	<i>other</i>	-	
tax/fee refund possibility		see above	
lower/upper tax/fee			
subjection bound		-	

Annex 2. Pollution taxes
Air pollution fees

Specification	Additional specification	Text	Notes																				
tax name		Air pollution fees																					
classification (verbal)		pollution tax																					
legal base (legal act)		Act No. 86/2002 Coll., on air protection, § 19																					
taxpayer		stationary air pollution source operator																					
payer (if other than taxpayer)																							
payment frequency		monthly / quarterly / semi-annual advance payments; one-time																					
payment recipient																							
tax/fee rate is set by		regional authority (extremely large and large sources), municipality with extended competence (medium sources), municipalities (small sources)																					
tax/fee is collected by		customs authorities (except for small sources), municipalities (small sources)																					
the tax/fee is exacted by		customs authorities (except for small sources), municipalities (small sources)																					
beneficiary		State Environmental Fund (except for small source revenues), municipalities (for small sources)																					
revenue assignment (incl. partial)		small source revenues are used for environmental protection																					
tax/fee assessment basis	volume / transaction volume	polluting substances emission volume																					
	market price per unit (in case of transactions)	n.a.																					
special tax/fee assessment basis		none																					
tax/fee rate	nominal		only intervals for small sources																				
		extremely large, large and medium sources																					
		<table><tr><td>main polluting substances</td><td>Rate CZK/t</td></tr><tr><td>Suspended Particulate Matter</td><td>3 000</td></tr><tr><td>Sulphur dioxide</td><td>1 000</td></tr><tr><td>Nitrogen oxides</td><td>800</td></tr><tr><td>Volatile organic compounds</td><td>2 000</td></tr><tr><td>Heavy metals and their compounds</td><td>20 000</td></tr><tr><td>CO</td><td>600</td></tr><tr><td>Ammonia</td><td>1 000</td></tr><tr><td>Methane</td><td>1 000</td></tr><tr><td>Polycyclic aromatic hydrocarbons</td><td>20 000</td></tr></table>	main polluting substances	Rate CZK/t	Suspended Particulate Matter	3 000	Sulphur dioxide	1 000	Nitrogen oxides	800	Volatile organic compounds	2 000	Heavy metals and their compounds	20 000	CO	600	Ammonia	1 000	Methane	1 000	Polycyclic aromatic hydrocarbons	20 000	
main polluting substances	Rate CZK/t																						
Suspended Particulate Matter	3 000																						
Sulphur dioxide	1 000																						
Nitrogen oxides	800																						
Volatile organic compounds	2 000																						
Heavy metals and their compounds	20 000																						
CO	600																						
Ammonia	1 000																						
Methane	1 000																						
Polycyclic aromatic hydrocarbons	20 000																						

Annex 2. Pollution taxes
Air pollution fees

End of table

Specification	Additional specification	Text		Notes
		other polluting substances	Rate CZK/t	
		Class I	20 000	
		Class II	10 000	
		Class I. asbestos, benzene, beryllium and its compounds		
		Class II. fluor, chlorine, bromine and fluor and their organic and inorganic compounds, sulfan and carbon disulphide		
		small sources		
		Fuel	Rate interval	
		Nominal heat output	from 50 to 100 kW incl.	from 100 to 200 kW
		Fuel oil with sulphur share from 0,1 to 0,2 %	1 000 - 1 500	1 500 - 2 000
		Fuel oil with sulphur share up to 1 %	1 500 - 2 500	2 500 - 3 000
		Other liquid fuels and substances unless this Act prohibits their burning	6 000 - 8 000	8 000 - 12 000
		Hard coal	1 500 - 2 000	2 000 - 3 000
		Sorted brown coal, brown coal fuel	2 500 - 4 000	4 000 - 5 000
		Energy brown coal, lignite	4 000 - 6 000	6 000 - 10 000
		Coal sludge	10 000 - 20 000	20 000 - 40 000
exemptions	effective	n.a.		
	for products/activities	none		
	for sectors	none		
	for regions	none		
	for public administration	none		
	for diplomatic service	none		
	for export	none		
	for sailing	none		
tax/fee refund possibility	for aviation	none		
	other	none		
lower/upper tax/fee subsection bound		possibility of tax deferral and consequent remission of 60 % of fee amount after beginning the works leading to emission reductions (§ 21)		
		combustion sources with heat output under 50 kW aren't subject to fee; fees under 500 CZK are not assessed		

Annex 2. Pollution taxes

Fees for production and import of ozone depleting substances

Specification	Additional specification	Text	Notes
tax name		Fees for production and import of ozone depleting substances	
classification (verbal)		pollution tax	
legal base (legal act)		Act No. 86/2002 Coll., on air protection, § 33	§ 29 (since 1.2.2009)
taxpayer		producer remits to State Environmental Fund	
payer (if other than taxpayer)			
payment frequency		up to 30 days from delivery of products from warehouse	
payment recipient		State Environmental Fund	
tax/fee rate is set by		producer himself	
tax/fee is collected by			
the tax/fee is exacted by		Czech Environmental Inspection	
beneficiary		State Environmental Fund	
revenue assignment (incl. partial)		for ozone layer protection	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount of regulated substance in kg	
	<i>market price per unit (in case of transactions)</i>		
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i>	400 CZK/kg	
	<i>effective</i>		
exemptions	<i>for products/activities</i>	regulated substances used as inputs for other chemical compounds' production	
		produced regulated substances serving for purposes of minimal necessary peoples' health and life protection	
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
	<i>other</i>		
tax/fee refund possibility		-	
lower/upper tax/fee subjection bound		-	

Annex 2. Pollution taxes

Fee for the discharge of waste water into surface water

Specification	Additional specification	Text			Notes
tax name		Fee for the discharge of waste water into surface water (fee for the pollution of discharged wastewater and fee for the volume of discharged wastewater)			
classification (verbal)		pollution taxes			
legal base (legal act)		Act No. 254/2001 Coll., on waters, § 89 an.			
taxpayer		legal or natural person discharging waste water			
payer (if other than taxpayer)					
payment frequency		monthly / quarterly advance payments			
payment recipient		customs authorities			
tax/fee rate is set by		Czech Environmental Inspection			
tax/fee is collected by		customs authorities			
the tax/fee is exacted by		customs authorities			
beneficiary		State Environmental Fund			
revenue assignment (incl. partial)		-			
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount of polluting substances (fee for pollution of discharged water)			
		volume of discharged waste water (fee for the volume of discharged wastewater)			
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>				
tax/fee rate	<i>nominal</i>	fee for pollution of discharged water			
		pollution indicator	fee rate (CZK/kg)	weight limit (kg/year)	concentration limit (mg/l)
		COD of non-cleaned waste water	16	8 000	40
		COD of cleaned waste water	8	10 000	40
		COD for cleaned waste water cleaned from cellulose production and cotton and flax textile finishing	3		
		inorganic dissolved compounds	0,5	20 000	1200
		suspended compounds	2	10 000	30
		total phosphorus	70	3 000	3
		total inorganic nitrogen	30	20 000	20
		absorbable organic halogens (AOX)	300	15	0,2
		mercury	20 000	0,4	0,002
		cadmium	4 000	2	0,01

Annex 2. Pollution taxes

Fee for the discharge of waste water into surface water

End of table

Specification	Additional specification	Text	Notes
		fee for the volume of discharged wastewater	
		0,1 CZK per 1 m ³ of discharged water	
	<i>effective</i>		
exemptions	<i>for products/activities</i>	mineral water certified according to special act	
		natural mineral water	
		water from remediation wells	
		wastewater from flow cooling of steam turbines	
	<i>for sectors</i>	in case of reduction or breakdown of wastewater treatment plant due to flooding or other natural disaster	
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
	<i>other</i>	if the amount of substance subject to fee reduces compared to previous calendar year by 20-50 %, the fee for pollution of discharged waters for this substance is reduced at twice as bigger rate	
		if the amount of substance subject to fee reduces compared to previous calendar year by more than 50%, the fee is not claimed	
tax/fee refund possibility		deferment and exemption of up to 80 % of fee after beginning works on wastewater treatment plant building or some other investment unit contributing to reduction of pollution of discharged wastewater (§ 96-97)	
lower/upper tax/fee subjection bound		the polluter is obliged to pay fee for pollution of discharged water if the amount of discharged water exceeds the weight and concentration limits of the certain indicator at the same time	
		the polluter is obliged to pay fee for the volume of discharged wastewater into surface water if the volume of discharged wastewater exceeds 100 000 m ³ per year	

Annex 2. Pollution taxes

Fee for the discharge of waste water into ground water

Specification	Additional specification	Text	Notes
tax name		Fee for the discharge of waste water into ground water	
classification (verbal)		pollution tax	
legal base (legal act)		Act No. 254/2001 Coll., on water, § 100	
taxpayer		authorized (person authorized to discharge waste water into ground water)	
payer (if other than taxpayer)			
payment frequency		yearly	
payment recipient		municipality	
tax/fee rate is set by		municipality	
tax/fee is collected by		municipality	
the tax/fee is exacted by		municipality	
beneficiary		municipality	
revenue assignment (incl. partial)			
tax/fee assessment basis	<i>emission volume / transaction volume</i>	-	
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>	-	
tax/fee rate	<i>nominal</i>	flat-rate	
	<i>effective</i>	3 500 CZK/year	
exemptions	<i>for products/activities</i>	discharging mineral water certified according to special act	
		discharge of natural mineral water	
		discharge of water used for heat energy production	
		discharge of waters pollution level of which was reduced after their extraction from ground water	
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
tax/fee refund possibility	<i>other</i>	wastewaters cleaned up by household wastewater treatment unit to the level defined in permission to wastewater discharge are subject to exemption	
lower/upper tax/fee subjection bound			

Annex 2. Pollution taxes

Waste deposition fee

Specification	Additional specification	Text				Notes
tax name		Waste deposition fee				
classification (verbal)		pollution tax				
legal base (legal act)		Act No. 185/2001 Coll., on waste, § 45				
taxpayer		waste generator				
payer (if other than taxpayer)						
payment frequency		upon landfill waste deposition				
payment recipient		landfill operator				
tax/fee rate is set by						
tax/fee is collected by		landfill operator (controlled by municipality and regional authority)				
the tax/fee is exacted by		customs authority				
beneficiary		municipality (basic component), State Environmental Fund (risk component)				
revenue assignment (incl. partial)		-				
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount of deposited waste /safety level				
	<i>market price per unit (in case of transactions)</i>					
special tax/fee assessment basis						
tax/fee rate	<i>nominal</i>	basic component (CZK/t)				
			2002 to 2004	2005 to 2006	2007 to 2008	2009 and later
		Waste category				
		hazardous	1 100	1 200	1 400	1 700
		municipal and other	200	300	400	500
		risk component (CZK/t)				
			2002 to 2004	2005 to 2006	2007 to 2008	2009 and later
		Waste category				
		hazardous	2 000	2 500	3 300	4 500
	<i>effective</i>					

Annex 2. Pollution taxes

Waste deposition fee

Specification	Additional specification	Text	Notes
exemptions	for products/activities		
	for sectors		
	for regions		
	for public administration		
	for diplomatic service		
	for export		
	for sailing		
	for aviation		
	other	fees are not paid for deposition of waste as a technological material used for technical operating of the landfill	
		basic component of the fee is not paid if municipality is a waste generator depositing waste to the landfill on its cadastral territory	
tax/fee refund possibility			
lower/upper tax/fee			
subjection bound			

Annex 2. Pollution taxes

Local fee for operating the system of waste collection, transportation, sorting, reuse, and disposal of municipal waste

Specification	Additional specification	Text	Notes
tax name		local fee for operating the system of waste collection, transportation, sorting, reuse, and disposal of municipal waste	
classification (verbal)		pollution tax	
legal base (legal act)		Act No. 565/1990 Coll., on local fees, § 10b	
taxpayer		natural person with long-term residence permit in the municipality, natural person owning construction object for individual recreation on the territory of municipality	
payer (if other than taxpayer)			
payment frequency		yearly	
payment recipient		municipality	
tax/fee rate is set by		municipality	
tax/fee is collected by		municipality	
the tax/fee is exacted by		municipality	
beneficiary		municipality	
revenue assignment (incl. partial)		-	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	per capita (lump sum) / derived from municipality collection and transportation costs	
	<i>market price per unit (in case of transactions)</i>		
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i>	up to 250 CZK per capita per year	per capita component
		up to 250 CZK per capita per year	municipality collection and transportation costs component
exemptions	<i>effective for products/ activities</i>	-	
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
	<i>other</i>		
tax/fee refund possibility		-	
lower/upper tax/fee			
subjection bound		max. amount 500 CZK per capita per year	

Annex 2. Pollution taxes
Fee for residential waste

Specification	Additional specification	Text	Notes
tax name		Fee for residential waste	can not be set simultaneously with the local fee for operating the system of waste collection, transportation, sorting, reuse, and disposal of municipal waste
classification (verbal)		pollution tax	
legal base (legal act)		Act No. 185/2001 Sb., on waste, § 17a	complemented by a novel 275/2002 Coll.
taxpayer		every natural person whose activity produces waste	
payer (if other than taxpayer)		owner of the property where the waste is produced	
payment frequency		yearly	
payment recipient		municipality	
tax/fee rate is set by		municipality	
tax/fee is collected by		municipality	
the tax/fee is exacted by		municipality	
beneficiary		municipality	
revenue assignment (incl. partial)		-	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	per capita (lump sum) / derived from municipality collection and transportation costs	
	<i>market price per unit (in case of transactions)</i>		
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i>	is set up by municipality in a mandatory public notice	
	<i>effective</i>	maximum fee rate is set in accordance with assumed eligible municipality costs connected to municipal waste processing regime	
exemptions	<i>for products/ activities</i>	-	
	<i>for sectors</i>	-	
	<i>for regions</i>	-	
	<i>for public administration</i>	-	
	<i>for diplomatic service</i>	-	
	<i>for export</i>	-	
	<i>for sailing</i>	-	
	<i>for aviation</i>	-	
	<i>other</i>	-	
tax/fee refund possibility		-	
lower/upper tax/fee		-	
subjection bound		-	

Annex 2. Pollution taxes

Fee for support of collection, processing, reuse and disposal of chosen automobile wrecks

Specification	Additional specification	Text	Notes
tax name		fee for support of collection, processing, reuse and disposal of chosen automobile wrecks	
classification (verbal)		transport tax	
legal base (legal act)		Act No. 185/2001 Coll., on waste, § 37e	novelized since 1.1.2009
taxpayer		certified / individual importer of the used car	
payer (if other than taxpayer)			
payment frequency		one-time	
payment recipient		State Environmental Fund	
tax/fee rate is set by			
tax/fee is collected by		implementary regulations missing	
the tax/fee is exacted by			
beneficiary		State Environmental Fund	
revenue assignment (incl. partial)		for support of collection, processing, reuse and disposal of chosen automobile wrecks and their parts	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	import of used cars	
	<i>market price per unit (in case of transactions)</i>	-	
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i>	5 000 CZK	
	<i>effective</i>		
exemptions	<i>for products/activities</i>	in case the car complies technical emission norms for exhaust required for production of the same category of vehicle	
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
	<i>other</i>		
tax/fee refund possibility		-	
lower/upper tax/fee subjection bound		-	

Annex 2. Pollution taxes

Payments to a nuclear account

Specification	Additional specification	Text		Notes
tax name		Payments to a nuclear account		
classification (verbal)		pollution tax		
legal base (legal act)		§ 27 of radioactive law (18/1997 Coll.)		
taxpayer		radioactive waste producer		
payer (if other than taxpayer)				
payment frequency		one-time (small amount radioactive waste producers), monthly advance payments (in case of radioactive plant operation)		
payment recipient		nuclear account		
tax/fee rate is set by		payment return is reported to Radioactive Waste Repository Authority		
tax/fee is collected by		Radioactive Waste Repository Authority		
the tax/fee is exacted by				
beneficiary		major part is payment for Radioactive Waste Repository Authority activities, partly is payment to municipalities on whose cadastral territory Radioactive Waste Repository is situated		
revenue assignment (incl. partial)		payment is earmarked to beneficial activities of municipality specified in application		
tax/fee assessment basis	<i>emission volume / transaction volume</i>	yearly electrical energy production (i.e. yearly heat energy production in research reactors); amount of radioactive waste (small radioactive waste producers)		
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>			
tax/fee rate	<i>nominal</i>	nuclear plants	50 CZK/MWh (el)	
		research reactors	15 CZK/MWh (heat)	
		small amounts complying conditions to deposition	15 360 CZK/barrel (200 l)	rate is yearly increased by 6 % since 1.1.2004
		small amounts not complying conditions to deposition	17 140 CZK/barrel	
exemptions	<i>effective for products/activities</i>	-		
	<i>for sectors</i>	-		
	<i>for regions</i>	-		
	<i>for public administration</i>	-		
	<i>for diplomatic service</i>	-		
	<i>for export</i>	-		
	<i>for sailing</i>	-		
	<i>for aviation</i>	-		
tax/fee refund possibility		-		
lower/upper tax/fee subjection bound		-		

Annex 3. Resource taxes

Charge for removal of land from the agricultural land fund

Specification	Additional specification	Text	Notes
tax name		Charge for removal of land from the agricultural land fund	
classification (verbal)		resource tax	
			At present the novel supposed to increase level of charges is being discussed in the Parliament
legal base (legal act)		Act No. 334/1992 Coll., on agricultural land fund protection, § 11	
taxpayer		person who was granted an agreement to remove land from agricultural land fund	
payer (if other than taxpayer)			
payment frequency		one-time (permanent withdrawal) / yearly (temporary withdrawal)	
payment recipient			
tax/fee rate is set by		agricultural land fund protection authority (according to amount of withdrawal municipality with extended competence, regional authority or ministry)	
tax/fee is collected by		customs authority	
the tax/fee is exacted by		customs authority	
beneficiary		municipality (40 %), State Environmental Fund (60 %)	
revenue assignment (incl. partial)		part of revenues of municipality is earmarked for improvement of environment of municipality and for protection and renewal of landscape	
tax/fee assessment basis	<i>emission volume / transaction volume</i>		
	<i>market price per unit (in case of transactions)</i>	area of withdrawn land in ha	
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i> <i>effective</i>	according to climatic region and prevailing land unit with a view to environmental factor and eventual reasons for basic rate reduction (in accordance with annex to Act)	

Annex 3. Resource taxes

Charge for removal of land from the agricultural land fund

Specification	Additional specification	Text	Notes
exemptions	<i>for products/activities</i>	charges are not stipulated for basic agricultural industry constructions, for agricultural tertiary roads constructing, for fishing or poultry ponds and for realization of investments improving soil fertility	
		construction of objects and equipment necessary for waste water treatment	
		infrastructure, yards, hard surfaces and green vegetation in residential areas and for construction of civil and technical amenities	
		placing geodesic signs, transmission towers, pumping stations, drill holes and wells, airshafts etc.	
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
	<i>other</i>		
tax/fee refund possibility			
lower/upper tax/fee			
subjection bound		if one-time charge level does not exceed 50 CZK	

Annex 3. Resource taxes

Fee for the withdrawal of forest land

Specification	Additional specification	Text	Notes
tax name		Fee for the withdrawal of forest land	
classification (verbal)		resource tax	
legal base (legal act)		§ 17 of Act No. 289/1995 Coll., on forests	
taxpayer		person authorized to permanent or temporary forest land withdrawal	
payer (if other than taxpayer)			
payment frequency		one-time (permanent withdrawal) / yearly (temporary withdrawal)	
payment recipient		customs authority	
tax/fee rate is set by		state forest management authority	
tax/fee is collected by		customs authority	
the tax/fee is exacted by		customs authority	
beneficiary		municipality (40 %), State Environmental Fund (60 %)	
revenue assignment (incl. partial)		part of revenues of municipality is earmarked for improvement of environment of municipality and for forest conservation	
tax/fee assessment basis	<i>emission volume / transaction volume</i>		
	<i>market price per unit (in case of transactions)</i>	area of withdrawn forest land in ha	
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i> <i>effective</i>	estimated as average yearly potential yield times average wood price in the area times social weight factor	
exemptions	<i>for products/activities</i>	the fee is not stipulated in cases of land withdrawal for buildings serving for forest management purposes	
		for construction of facilities and equipment necessary for waste water treatment	
		for construction of facilities and equipment necessary for collection and production of drinking water	
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
	<i>other</i>		
tax/fee refund possibility			
lower/upper tax/fee subjection bound			

Annex 3. Resource taxes

Charge for withdrawn amounts of ground waters

Specification	Additional specification	Text		Notes
tax name		Charge for withdrawn amounts of ground waters		
classification (verbal)		resource tax		
legal base (legal act)		Act No. 254/2001 Coll., on water, §4 88		
taxpayer		person authorized to withdraw ground water		
payer (if other than taxpayer)				
payment frequency		monthly / quarterly / yearly advance payments		
payment recipient		customs authorities		
tax/fee rate is set by		Czech Environmental Inspection		
tax/fee is collected by		customs authorities		
the tax/fee is exacted by		customs authorities		
beneficiary		50 % State Environmental Fund, 50 % regional authority on the territory of which withdrawal takes place		
revenue assignment (incl. partial)		for support of construction and renewal of water management infrastructure and for establishing and topping up special account according to § 42 article 4 (regional authority share)		
tax/fee assessment basis	emission volume / transaction volume	amount of withdrawn water in m ³		
special tax/fee assessment basis	market price per unit (in case of transactions)			
tax/fee rate	nominal	purpose of withdrawal	rate	
		for drinking water supply	2 CZK/m ³	
		for other purposes	3 CZK/m ³	
exemptions	effective for products/ activities	authorized withdrawals for heat energy acquiring		
		water withdrawals for reduction of ground water pollution		
		water withdrawals for their level reduction		
		water withdrawals serving hydraulic protection of ground water against pollution		
	for sectors			
	for regions			
	for public administration			
	for diplomatic service			
	for export			
	for sailing			
	for aviation			
	other			
tax/fee refund possibility		-		
lower/upper tax/fee subjection bound		payment is not paid for single source withdrawal under 6000 m ³ per year (or 500 m ³ per month)		

Annex 3. Resource taxes

Charge for water courses and river basins management

Specification	Additional specification	Text	Notes
tax name		Charge for water courses and river basins management	
classification (verbal)		resource tax	
legal base (legal act)		Act No. 254/2001 Coll., on water, § 101 an.	
taxpayer		subject authorized to surface water withdrawal from water course	
payer (if other than taxpayer)			
payment frequency		monthly (if not specified otherwise)	
payment recipient		water course management body	
tax/fee rate is set by			
tax/fee is collected by		water course management body	
the tax/fee is exacted by		water course management body	
beneficiary		water course management body	
revenue assignment (incl. partial)			
tax/fee assessment basis	<i>emission volume / transaction volume</i>	amount of withdrawn surface water	
	<i>market price per unit (in case of transactions)</i>		
special tax/fee assessment basis			
tax/fee rate	<i>nominal effective</i>	regulated price (private remuneration) set by watercourse management body	
exemptions	<i>for products/ activities</i>	withdrawal of surface water for operating fish nurseries and for replenishment of ponds and reservoirs for fish farming	
		for replenishment of artificial landscape hollows (left after mineral mining) not requiring withdrawal or remitting the water by water course management body	
		for flow cooling of research nuclear reactors	
		for fire fighting purposes, replenishment of public basins, watercourse oxbows and basins creating protected biotope of plants and animals	
		for producing snow by water cannons	
		withdrawal of sludge waters for agricultural or forest production and for authorized withdrawal for balancing weight deficit of agricultural plants	
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		

Annex 3. Resource taxes**Charge for water courses and river basins management**

End of table

Specification	Additional specification	Text	Notes
	<i>other</i>	river basins management payments are made only in case of withdrawals from significant water courses	
		price for use of water for cooling steam turbines, agricultural irrigation and artificial landscape hollows replenishment are set separately	
tax/fee refund possibility			
lower/upper tax/fee subjection bound		payment is not paid for single source withdrawal under 6 000 m3 per year (or 500 m3 per month)	

Annex 3. Resource taxes

Charge for use of mineral water source

Specification	Additional specification	Text	Notes
tax name		Charge for use of mineral water source	
classification (verbal)		resource tax	
legal base (legal act)		§ 20 of spa law (164/2001 Coll.); governmental decree No. 385/2001 Coll.	
taxpayer		source user	
payer (if other than taxpayer)			
payment frequency		monthly	
payment recipient		customs administration	
tax/fee rate is set by			
tax/fee is collected by		customs administration	
the tax/fee is exacted by		customs administration	
beneficiary		state budget	
revenue assignment (incl. partial)		-	
tax/fee assessment basis	volume / transaction volume	withdrawn amount form the natural source of mineral water	
	market price per unit (in case of transactions)		
special tax/fee assessment basis			
tax/fee rate	nominal	3 CZK/m ³	
	effective		
exemptions	for products/activities		
	for sectors		
	for regions		
	for public administration		
	for diplomatic service		
	for export		
	for sailing		
	for aviation		
	other		
tax/fee refund possibility			
lower/upper tax/fee			
subjection bound			

Annex 3. Resource taxes

Charge for use of mining space area

Specification	Additional specification	Text	Notes
tax name		Charge for use of mining space area	
classification (verbal)		resource tax	
legal base (legal act)		§ 32a of Act No. 44/1988 Coll., on protection and use of mineral assets (mining law), public notice No. 617/1992 Coll.	novel with effect since 1.1.2006
taxpayer		organizations	legal and self-employed natural persons (§5a)
payer (if other than taxpayer)			
payment frequency		yearly	
payment recipient		district mining office board	
tax/fee rate is set by		the law assumes grading stipulated by governmental decree, that however have not been released yet	
tax/fee is collected by		district mining office board	
the tax/fee is exacted by		district mining office board	
beneficiary		municipality on the territory of which the mining space is situated	
revenue assignment (incl. partial)		-	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	mining space area	
special tax/fee assessment basis	<i>market price per unit (in case of transactions)</i>		
tax/fee rate	<i>nominal</i>	100 - 1 000 CZK/ha	implementary regulations absent
exemptions	<i>for products/activities</i>	-	
	<i>for sectors</i>	-	
	<i>for regions</i>	-	
	<i>for public administration</i>	-	
	<i>for diplomatic service</i>	-	
	<i>for export</i>	-	
	<i>for sailing</i>	-	
	<i>for aviation</i>	-	
	<i>other</i>	-	
tax/fee refund possibility		-	
lower/upper tax/fee			
subjection bound		-	

Annex 3. Resource taxes

Charge for mineral extraction

Specification	Additional specification	Text		Notes																										
tax name		Charge for mineral extraction																												
classification (verbal)		resource tax																												
legal base (legal act)		§ 32a of Act No. 44/1988 Coll., on protection and use of mineral assets (mining law), public notice No. 617/1992 Sb.																												
taxpayer		organizations		legal and self-employed natural persons (§5a)																										
payer (if other than taxpayer)																														
payment frequency		quarterly advance payments																												
payment recipient		district mining office board																												
tax/fee rate is set by		% rate is set by public notice																												
tax/fee is collected by		district mining office board																												
the tax/fee is exacted by		district mining office board																												
beneficiary		25 % state budget; 75 % municipality on the area of which the mining area is situated																												
revenue assignment (incl. partial)		state budget share is earmarked to abatement of damages caused by mining of reserved and non-reserved deposits																												
tax/fee assessment basis	emission volume / transaction volume	share of mining costs in total production costs, sales from products produced from extracted minerals																												
special tax/fee assessment basis	market price per unit (in case of transactions)																													
tax/fee rate	nominal	<table><tr><th>Extracted mineral type</th><th>Rate, %</th></tr><tr><td>Radioactive minerals</td><td>0,3</td></tr><tr><td>Petroleum in deposits with residual stocks mined using secondary mining methods</td><td>0,5</td></tr><tr><td>Petroleum and flammable natural gas</td><td>5</td></tr><tr><td>Ores</td><td>10</td></tr><tr><td>Graphite</td><td>1</td></tr><tr><td>Diatomaceous earth</td><td>2</td></tr><tr><td>Glass-making and welding sand</td><td>6</td></tr><tr><td>Bentonite</td><td>2</td></tr><tr><td>Minerals employed for stone-masonry production, incl. split shale</td><td>8</td></tr><tr><td>Technically utilizable mineral crystals and precious stones</td><td>10</td></tr><tr><td>Gypsum</td><td>5</td></tr><tr><td>Ceramic and fire-resistant clays and claystone obtained by deep mining</td><td>0,5</td></tr></table>		Extracted mineral type	Rate, %	Radioactive minerals	0,3	Petroleum in deposits with residual stocks mined using secondary mining methods	0,5	Petroleum and flammable natural gas	5	Ores	10	Graphite	1	Diatomaceous earth	2	Glass-making and welding sand	6	Bentonite	2	Minerals employed for stone-masonry production, incl. split shale	8	Technically utilizable mineral crystals and precious stones	10	Gypsum	5	Ceramic and fire-resistant clays and claystone obtained by deep mining	0,5	
Extracted mineral type	Rate, %																													
Radioactive minerals	0,3																													
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Gypsum	5																													
Ceramic and fire-resistant clays and claystone obtained by deep mining	0,5																													

Annex 3. Resource taxes

Charge for mineral extraction

End of table

Specification	Additional specification	Text		Notes
tax/fee rate	nominal	Extracted mineral type	Rate, %	
		Ceramic and fire-resistant clays and caystone obtained by surface mining	4	
		Kaolin for porcelain production	8	
		Kaolin for paper industry	6	
		Other kinds of kaolin	2	
		Feldspar pegmatites	1	
		Other feldspar raw materials	8	
		Quartz, quartzite, dolomite, marl, basalt, phonolite, trachyte, if these minerals are not suitable for chemical technological processing or processing by melting	4	
		High-percent limestone	10	
		Other limestones and raw materials for cement production	4	
		Deep-mined coal	0,5	
		Surface-mined coal	1,5	
		Other reserve minerals	5	
		Construction stone	2	
		Gravels and sands	3	
		Brick-making materials	1	
		Other nonreserve minerals	2	
			effective	
exemptions	for products/activities	reduction or exemption may be claimed: due to zero profit or loss, due to mine accident for purposes of solving social consequences, for sustaining low revenue mining, for mining the residual mine deposits		
	for sectors	-		
	for regions	-		
	for public administration	-		
	for diplomatic service	-		
	for export	-		
	for sailing	-		
	for aviation	-		
	other	-		
	tax/fee refund possibility		-	
lower/upper tax/fee subjection bound		-		

Annex 3. Resource taxes

Fee for the right of performing the deposit survey

Specification	Additional specification	Text	Notes
tax name		Fee for the right of performing the deposit survey	
classification (verbal)		resource tax	
legal base (legal act)		§ 4b of Act No. 62/1988 Coll., on geologic works	
taxpayer		submitter	legal and self-employed natural persons (§ 5a)
payer (if other than taxpayer)			
payment frequency		yearly	
payment recipient		municipality on the territory of which the survey space is situated	
tax/fee rate is set by			
tax/fee is collected by		municipality	
the tax/fee is exacted by		municipality	
beneficiary		municipality	
revenue assignment (incl. partial)		-	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	surveyed area	
	<i>market price per unit (in case of transactions)</i>		
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i>	2 000 CZK/km ² , increased by 1 000 CZK/km ² every year	
	<i>effective</i>		
exemptions	<i>for products/activities</i>	-	
	<i>for sectors</i>	-	
	<i>for regions</i>	-	
	<i>for public administration</i>	-	
	<i>for diplomatic service</i>	-	
	<i>for export</i>	-	
	<i>for sailing</i>	-	
	<i>for aviation</i>	-	
	<i>other</i>	-	
tax/fee refund possibility		-	
lower/upper tax/fee		-	
subjection bound		-	

Annex 4. Transport taxes
Road tax

Specification	Additional specification	Text		Notes																																												
tax name		Road tax																																														
classification (verbal)		transport tax																																														
legal base (legal act)		Act No. 16/1993 Coll., on road tax		novel since 1.1.2008																																												
taxpayer		vehicle operator; employer																																														
payer (if other than taxpayer)																																																
payment frequency		quarterly advance payments																																														
payment recipient		finance authority																																														
tax/fee rate is set by		taxpayer calculates in income statement																																														
tax/fee is collected by		finance authority																																														
the tax/fee is exacted by		finance authority																																														
beneficiary		State Fund for Transport Infrastructure																																														
revenue assignment (incl. partial)		transport infrastructure																																														
tax/fee assessment basis	emission volume / transaction volume	Swept volume (passenger cars), authorized maximum weight per axle and number of axles (trailers), authorized maximum weight and number of axles (other vehicles)																																														
	market price per unit (in case of transactions)	n.a.																																														
special tax/fee assessment basis		25 % rate increase in case of vehicles first registered before 31.12.1989																																														
tax/fee rate	nominal	passenger cars																																														
		<table><tr><td></td><td>tax yearly rate, CZK</td></tr><tr><td>swept volume of engine</td><td></td></tr><tr><td>up to 800 cm3</td><td>1 200</td></tr><tr><td>over 800 cm3 up to 1250 cm3</td><td>1 800</td></tr><tr><td>over 1250 cm3 up to 1500 cm3</td><td>2 400</td></tr><tr><td>over 1500 cm3 up to 2000 cm3</td><td>3 000</td></tr><tr><td>over 2000 cm3 up to 3000 cm3</td><td>3 600</td></tr><tr><td>over 3000 cm3</td><td>4 200</td></tr></table>		tax yearly rate, CZK	swept volume of engine		up to 800 cm3	1 200	over 800 cm3 up to 1250 cm3	1 800	over 1250 cm3 up to 1500 cm3	2 400	over 1500 cm3 up to 2000 cm3	3 000	over 2000 cm3 up to 3000 cm3	3 600	over 3000 cm3	4 200																														
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		other cars																																														
		<table><tr><td></td><td>1 axle, CZK</td><td>2 axles, CZK</td></tr><tr><td>up to 1 t</td><td>1 800</td><td>1 800</td></tr><tr><td>over 1 tunu up to 2 t</td><td>2 700</td><td>2 400</td></tr><tr><td>over 2 t up to 3,5 t</td><td>3 900</td><td>3 600</td></tr><tr><td>over 3,5 t up to 5 t</td><td>5 400</td><td>4 800</td></tr><tr><td>over 5 t up to 6,5 t</td><td>6 900</td><td>6 000</td></tr><tr><td>over 6,5 t up to 8 t</td><td>8 400</td><td>7 200</td></tr><tr><td>over 8 t up to 9,5 t</td><td rowspan="11">9 600</td><td>8 400</td></tr><tr><td>over 9,5 t up to 11 t</td><td>9 600</td></tr><tr><td>over 11 t up to 12 t</td><td>10 800</td></tr><tr><td>over 12 t up to 13 t</td><td>12 600</td></tr><tr><td>over 13 t up to 14 t</td><td>14 700</td></tr><tr><td>over 14 t up to 15 t</td><td>16 500</td></tr><tr><td>over 15 t up to 18 t</td><td>23 700</td></tr><tr><td>over 18 t up to 21 t</td><td>29 100</td></tr><tr><td>over 21 t up to 24 t</td><td>35 100</td></tr><tr><td>over 24 t up to 27 t</td><td>40 500</td></tr><tr><td>over 27</td><td>46 200</td></tr></table>		1 axle, CZK	2 axles, CZK	up to 1 t	1 800	1 800	over 1 tunu up to 2 t	2 700	2 400	over 2 t up to 3,5 t	3 900	3 600	over 3,5 t up to 5 t	5 400	4 800	over 5 t up to 6,5 t	6 900	6 000	over 6,5 t up to 8 t	8 400	7 200	over 8 t up to 9,5 t	9 600	8 400	over 9,5 t up to 11 t	9 600	over 11 t up to 12 t	10 800	over 12 t up to 13 t	12 600	over 13 t up to 14 t	14 700	over 14 t up to 15 t	16 500	over 15 t up to 18 t	23 700	over 18 t up to 21 t	29 100	over 21 t up to 24 t	35 100	over 24 t up to 27 t	40 500	over 27	46 200		
	1 axle, CZK	2 axles, CZK																																														
up to 1 t	1 800	1 800																																														
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over 5 t up to 6,5 t	6 900	6 000																																														
over 6,5 t up to 8 t	8 400	7 200																																														
over 8 t up to 9,5 t	9 600	8 400																																														
over 9,5 t up to 11 t		9 600																																														
over 11 t up to 12 t		10 800																																														
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over 15 t up to 18 t		23 700																																														
over 18 t up to 21 t		29 100																																														
over 21 t up to 24 t		35 100																																														
over 24 t up to 27 t		40 500																																														
over 27		46 200																																														

Annex 4. Transport taxes
Road tax

Continued

Specification	Additional specification	Text	Notes	
		other cars		
			3 axles, CZK	
		up to 1 t	1 800	
		over 1 tunu up to 2 t	2 400	
		over 2 t up to 3,5 t	3 600	
		over 6 t up to 8,5 t	6 000	
		over 8,5 t up to 11 t	7 200	
		over 11 t up to 13 t	8 400	
		over 13 t up to 15 t	10 500	
		over 15 t up to 17 t	13 200	
		over 17 t up to 19 t	15 900	
		over 19 t up to 21 t	17 400	
		over 21 t up to 23 t	21 300	
		over 23 t up to 26 t	27 300	
		over 26 t up to 31 t	36 600	
		over 31 t up to 36 t	43 500	
		over 36 t	50 400	
			4 axles and more, CZK	
		up to 18 t	8 400	
		over 18 t up to 21 t	10 500	
		over 21 t up to 23 t	14 100	
		over 23 t up to 25 t	17 700	
		over 25 t up to 27 t	22 200	
		over 27 t up to 29 t	28 200	
		over 29 t up to 32 t	33 300	
		over 32 t up to 36 t	39 300	
		over 36 t	44 100	
		effective	n.a.	

Annex 4. Transport taxes

Road tax

End of table

Specification	Additional specification	Text	Notes
exemptions	<i>products/activities</i>	electricity driven vehicles are subject to exempt	
		vehicle complying EURO 3 and higher standards are subject to 66 % tax rate reduction	valid until 31.12.2006
		domestic regular transport vehicles are subject to exempt; 25% rate reduction for vehicles performing production type operations in plant agriculture	
	<i>for sectors</i>		
	<i>for regions</i>		
		exempt for the following vehicles: vehicles operated by military forces, civil defence vehicles, mobilisation reserve or safety stock vehicles, vehicles of armed security forces, municipal police, volunteer firefighters, medical vehicles, mining and mountain vehicles	
	<i>for public administration</i>		
	<i>for diplomatic service</i>	yes	
	<i>for export</i>		
	<i>for sailing</i>	n.a.	
	<i>for aviation</i>	n.a.	
		100% exempt for vehicles over 3,5 t up to 12 t, which aren't used commercially and are used by non-business persons, natural persons	
	<i>other</i>	up to 100 % exempt for combined transport	
tax/fee refund possibility			
lower/upper tax/fee			
subjection bound			

Annex 4. Transport taxes

Fee for entry to chosen places on motor vehicle

Specification	Additional specification	Text	Notes
tax name		Fee for entry to chosen places on motor vehicle	
classification (verbal)		transport tax	
			establishing/ setting fees belongs to municipal sphere of action
legal base (legal act)		§ 10 of Act no. 565/1990 Coll., on local fees	
taxpayer		natural or legal person authorized to enter chosen places	
payer (if other than taxpayer)		and municipal districts on a motor vehicle	
payment frequency		-	
payment recipient		daily/lump sum	
tax/fee rate is set by		municipality	
tax/fee is collected by		municipality	
the tax/fee is exacted by		municipal office	
beneficiary		municipal office	
revenue assignment (incl. partial)		municipality	
		-	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	fee for entry to chosen places on motor vehicle otherwise prohibited by a respective traffic sign	e.g. "No entry for motor vehicles" sign accompanied by information table "Enter upon local entry fee payment"
	<i>market price per unit (in case of transactions)</i>		
special tax/fee assessment basis			
tax/fee rate	<i>nominal effective</i>	max. 20 CZK a day; no specific legislative limits in case of a lump sum	upper boundary set by law

Annex 4. Transport taxes**Fee for entry to chosen places on motor vehicle**

Specification	Additional specification	Text	Notes
exemptions	<i>for products/activities</i>	persons using real estate in a chosen place for business operation	
	<i>for sectors</i>	-	
	<i>for regions</i>	-	
	<i>for public administration</i>	-	
	<i>for diplomatic service</i>	-	
	<i>for export</i>	-	
	<i>for sailing</i>	-	
	<i>for aviation</i>	-	
	<i>other</i>	fee is not paid by persons with a permanent address in a certain place or owners of real estate in a certain place, as well as their near relations, spouses and children	
		furthermore holders of the disabled placard and their guides	
tax/fee refund possibility		municipality can remit the fee for willfulness elimination reasons	
lower/upper tax/fee			
subjection bound		-	

Annex 4. Transport taxes

Fee for driving motor vehicle on a territory of a national park

Specification	Additional specification	Text	Notes
tax name		Fee for driving motor vehicle on a territory of a national park	
classification (verbal)		transport tax	
legal base (legal act)		§ 24 of Act no. 114/1992 Coll., on nature and landscape protection, § 9 of public notice no. 395/1992 Coll., public notice no. 2/1995 of Krkonoše National Park Administration	
taxpayer		natural or legal person driving vehicle on the territory of Krkonoše National Park	
payer (if other than taxpayer)			
payment frequency		one-time, yearly or seasonal lump sum	
payment recipient		Krkonoše National Park Administration	
tax/fee rate is set by		Krkonoše National Park Administration	
tax/fee is collected by		Krkonoše National Park Administration	
the tax/fee is exacted by		Krkonoše National Park Administration	
beneficiary		Krkonoše National Park Administration	
revenue assignment (incl. partial)		-	
tax/fee assessment basis	objem emisí / objem transakce	one-time entrance and stay time	
	tržní cena za jednotku (u transakcí)		
special tax/fee assessment basis			
tax/fee rate	nominal	20 CZK/day, 50 CZK/day for busses	
	effective		
exemptions	for products/ activities		
	for sectors		
	for regions		
	for public administration		
	for diplomatic service		
	for export		
	for sailing		
	for aviation		
	other	fee is not paid by persons working, permanently living or natural persons owning recreational objects on the territory of Krkonoše National Park	
		holders of the disabled placard and professionally guided school and retired persons' bus tours on routes authorized by Krkonoše National Park Administration	
		the day of payment of fee for entering and staying on a territory of a national park on a motor vehicle is not subject to fee for driving motor vehicle	
tax/fee refund possibility			
lower/upper tax/fee			
subjection bound			

Annex 4. Transport taxes

Fee for entering and staying on a territory of a national park on a motor vehicle

Specification	Additional specification	Text	Notes
tax name		Fee for entering and staying on a territory of a national park on a motor vehicle	
classification (verbal)		transport tax	
legal base (legal act)		§ 24 of Act no. 114/1992 Coll., on nature and landscape protection, public notice no. 2/1995 of Krkonoše National Park Administration	
taxpayer		natural or legal person entering or staying in vehicle on the territory of Krkonoše National Park	
payer (if other than taxpayer)			
payment frequency		one-time	
payment recipient		Krkonoše National Park Administration	
tax/fee rate is set by		Krkonoše National Park Administration	
tax/fee is collected by		Krkonoše National Park Administration	
the tax/fee is exacted by		Krkonoše National Park Administration	
beneficiary		Krkonoše National Park Administration	
revenue assignment (incl. partial)		-	
tax/fee assessment basis	<i>emission volume / transaction volume</i>	one-time entrance and stay time	
	<i>market price per unit (in case of transactions)</i>		
special tax/fee assessment basis			
tax/fee rate	<i>nominal</i>	according to vehicle type and stay length (set by public notice)	
	<i>effective</i>		
exemptions	<i>for products/ activities</i>		
	<i>for sectors</i>		
	<i>for regions</i>		
	<i>for public administration</i>		
	<i>for diplomatic service</i>		
	<i>for export</i>		
	<i>for sailing</i>		
	<i>for aviation</i>		
	<i>other</i>	fee is not paid by persons working, permanently living or natural persons owning recreational objects on the territory of Krkonoše National Park	
		holders of the disabled placard and professionally guided school and retired persons' bus tours on routs authorized by Krkonoše National Park Administration	
tax/fee refund possibility			
lower/upper tax/fee			
subjection bound			

Annex 5. Public budget structure

Item	Revenue	ESA95 code
1	TAX REVENUE	
12	Domestic taxes on goods and services	
122	Domestic taxes on specific goods and services	
1221	Excise duty on hydrocarbon fuels and lubricants	D214r and D212r
1226	Duty on CFC (injury to ozone layer of the Earth)	D214r and D212r
13	Taxes and fees on specific services and perform activities	
132	Taxes and fees on the use of motor vehicles	
1321	Road tax	D29r
1322	Highway fee (vignete)	P.111
133	Environmentally related taxes and fees	
1331	Surface water pollution fee	D.29
1332	Air pollution fee	D.29
1333	Waste deposit fee	P.131
1334	Levy on temporary withdrawal of land from agriculture	D.29
1334	Levy on withdrawal of land from agriculture	D.214
1335	Levy on temporary withdrawal of land from forestry	D.29
1335	Levy on withdrawal of land from forestry	D.214
1336	Underground water pollution fee	D.29
1337	Municipal waste disposal fee	P.131
1338	Fee on registration and recording of packaging	D.29
1339	Other environmental fees and levies	D.29
134	Local fees on specific activities and services	
1346	Motor vehicle entry fees	D.29
1346	Motor vehicle entry fees	D.59
2	NON-TAX INCOME	
21	Income from own activities and surplus transfers of direct related organizations	
211	Income from own activities	
2114	Toll	P.111
234	Income from use of exclusive right to natural sources	
2341	Spring water use fee	D.45
2342	Subterraneous water use payments	D.45
2343	Mineral rights and mineral mining payments	D.45

Annex 6

Annex 6. Questionnaire NTL - Detailed list of taxes and social contributions according to national classification
(ESAP2GOV_NTL_A_Quest_95-08_2009.xls), mil. CZK

TRANS ?	Tax name according to national classification	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
D2122CA	Excise duty on hydrocarbon fuels and lubricants	15 173	16 391	17 200	18 173	22 791	21 032	24 991	21 650	20 135	20 361	20 489	22 151	21 875	22 143
D2122CF	Energy tax on electricity	M	M	M	M	M	M	M	M	M	M	M	M	M	307
D2122CG	Energy tax on natural gas	M	M	M	M	M	M	M	M	M	M	M	M	M	310
D2122CH	Energy tax on solid fuels	M	M	M	M	M	M	M	M	M	M	M	M	M	129
D214AA	Excise duty on hydrocarbon fuels and lubricants	18 710	20 210	21 209	22 409	22 787	25 966	28 477	32 523	38 827	47 613	53 825	54 731	59 730	59 027
D214AG	Energy tax on electricity	M	M	M	M	M	M	M	M	M	M	M	M	M	819
D214AH	Energy tax on natural gas	M	M	M	M	M	M	M	M	M	M	M	M	M	826
D214AI	Energy tax on solid fuels	M	M	M	M	M	M	M	M	M	M	M	M	M	344
D214CA	Levy on withdrawal of land from agriculture	366	339	478	434	495	532	335	357	358	284	351	360	360	352
D214CB	Levy on withdrawal of land from forestry	0	0	12	18	42	41	51	52	42	47	59	79	57	49
D29AB	Levy on temp. withdrawal of land from agriculture	22	122	120	179	78	76	73	64	62	50	62	64	46	40
D29AC	Levy on temp. withdrawal of land from forestry	0	9	15	18	11	8	9	9	9	8	10	14	6	5
D29AD	Motor vehicle entry fees	0	0	10	20	17	15	19	17	18	15	11	13	11	12
D29BA	Road tax	4 834	5 313	3 865	4 387	5 415	5 456	5 343	5 577	5 697	5 459	5 154	5 597	5 882	5 777
D29FA	Water pollution fee	2 494	2 174	499	465	527	529	484	487	492	430	383	304	403	242
D29FB	Air pollution fee	0	0	1 625	1 273	999	718	623	633	606	497	513	483	525	553
D29FC	Radioactive waste fee	0	0	0	0	0	642	0	0	0	1	1	0	0	0
D29FD	Underground water pollution fee	525	521	493	0	0	0	0	0	0	0	0	0	0	2
D29FE	Other environmental fees and levies	0	0	0	0	0	0	0	0	0	0	0	0	0	4
D29HA	Highway fee	668	681	696	1 149	1 371	1 227	1 235	987	1 135	M	M	M	M	M
D59DA	Highway fee	286	292	298	493	588	526	529	807	928	M	M	M	M	M
D59FB	Motor vehicle entry fees	21	23	14	29	12	13	13	17	18	15	11	13	13	12

Codes for specific entries:

M - "not applicable / do not exist"

L - "not available / exist but not collected or not transmitted"

0 - "exist but value is zero or considered as zero"