

Comparison of presented environmental data with a view to municipality¹

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Introduction

It is known there are two ways to observe expenditures for environmental protection in the Czech Republic:

- via sample survey by Czech Statistical Office
- via the Ministry of Finance's information system ARIS².

Expenditures for environmental protection obtained from those two main sources are also used by CENIA Agency which displays the data on its own website, as analyzed later.

In both cases expenditures are observed by the international classification CEPA 2000 which divides environmental protection expenditures into 9 areas:

1. Protection of ambient air and climate
2. Waste water management
3. Waste management
4. Protection and maintenance of soil, underground and ground water
5. Noise and vibration abatement (except for protection of work places)
6. Biodiversity and landscape protection
7. Protection against radiation (except for external protection)
8. Research and development
9. Other environmental protection activities

Budget composition does not exactly follow these areas. Field classification of budget composition for 2009 divides section 37- environmental protection into the following subsections:

- 371 – Protection of ambient air and climate
- 372 – Waste management
- 373 – Protection and maintenance of soil and underground water
- 374 – Protection of nature and landscape
- 375 – Noise and vibration abatement
- 376 – Environmental protection administration
- 377 – Protection against radiation
- 378 – Environmental research
- 379 – Other environmental activities

The differences in the methodology of data classification are shown in the chart below.

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² ARIS stands for Automated Budgeting Information System

Chart 1: Municipality budgets expenditures according to the functional classification of budget composition and Czech Statistical Office

Czech Statistical Office	Ministry of Finance (budget composition)
Protection of ambient air and climate	Air protection
Waste water management	Water protection
Waste management	Waste management
Protection and maintenance of soil, underground and ground water	Protection of soil and underground water
Noise and vibration abatement (except for protection of work places)	Reduction of physical factors effects (noise and vibration abatement and protection against radiation)
Protection against radiation	
Landscape and biodiversity protection	Biodiversity and landscape protection
Research and development	Environmental research
Other activities	Other ecological activities
	Environmental protection administration

As seen from the chart, there are some small differences in the application of CEPA 2000 methodology in the Czech Republic according to Czech Statistical Office³ and the Ministry of Finance. In OECD and Eurostat methodology these differences in particular items are emphasized as well as other differences when observing data according to CEPA 2000 in various countries. The most concerned item is the “other” item where some countries include other areas and therefore there are less than 9 areas observed. Some areas may not be observed at all.⁴

It is important to add that besides the section 37 there are also sections 10 and 23, e.g. 1037 and mainly paragraphs 2321, 2322, and 2324. These paragraphs have an impact on the amount of ecological expenditures and it is necessary to include them into municipality budgets expenditures which are spent on environmental protection activities. According to the authors Paroubek and Kinšt⁵ these paragraphs are preferred to those in the section 37.

³ The classification of areas according to Czech Statistical Office corresponds to the classification according Eurostat

⁴ OECD/Eurostat: Environmental Protection Expenditure and Revenue Joint Questionnaire/

⁵ Kinšt, Paroubek: Rozpočtová skladba v roce 2009, p. 138

Czech Statistical Office observes investments to environmental protection, non-investment expenditures for environmental protection and economic benefits from activities regarding environmental protection.

These data are observed with the help of sample surveys done by Czech Statistical Office in “Annual statement about environmental protection expenditures”. According to the information from CSU, they chose mostly agricultural and industrial economic subjects, subjects that deal with waste water and waste removal, public cleaning (OKEC 90), communities having a population of more than 500, budget organizations, state organizations, state funds, National Property Fund, Land Fund, Support and Guarantee Agricultural and Forestry Fund, Railway Infrastructure Administration.⁶

It is obvious that the sample survey of CSU does not involve small towns (with a population of less than 500) and it is hard to determine whether the expenditures were funded by public or private sector.

Public sector expenditures and mostly those from public budgets are observed by the Ministry of Finance independently. Using its statistics and the information system ARIS, the Ministry assigns environmental protection expenditures from central sources (state budget, state funds) and municipality budgets. The differences in data from MF and CSU are shown in the following (detailed) chart 2.

Based on an elaborated analysis, data from the Ministry of Finance and its system ARIS are more relevant. They are complete because they contain data about budget plan as well as its execution in every municipality. For the further analysis it is necessary to discuss the CEPA methodology and the budget composition paragraphs which can be included into particular areas of environmental protection within municipality budgets analysis.

The presented data are taken up and used in other official documents which could be confusing sometime. CSU posts several publications that refer to investment and non-investment expenditures for environmental protection. The first document is “Statistical yearbook 2007” with published investment and non-investment expenses classified, among others, by regions. The data are published with delay – we can find only expenditures from 2005 in the updated yearbook. Similar data can be found in two other documents; Regional yearbooks and a publication called “Environmental protection expenditures in the Czech republic”. It is a paradox that the most updated documents contain data from 2007, too.

There are two more publications that contain data from both sources. It is “Statistical yearbook of environment 2008” and “Report on environment in the Czech Republic 2008”. Although both publications cite the sources, less informed individuals can make errors when applying the data.

⁶ Annual statement about environmental protection expenditures

Chart 2: Comparison of data from MF CR and CSU in chosen environment protection area by regions in 2007

	Source	Capital						Non-capital (current)						TOTAL
		Air protection	Waste water management	Waste management	Protection and maintenance of soil, underground and ground water	Others	Total	Air protection	Waste water management	Waste management	Protection and maintenance of soil, underground and ground water	Others	Total	
Prague City	MF	19 310	263 824	6 955	920	754 887	1 045 896	12 871	129 329	1 209 499	14	1 045 148	2 396 862	3 442 758
	CSU	596 509	277 801	914 885	334 959	1 401 061	3 525 215	784 832	1 238 213	9 880 238	644 295	323 860	12 871 438	16 396 653
Central Bohemia Region	MF	24 493	1 847 776	15 385	0	95 800	1 983 454	6 104	196 938	843 080	777	514 834	1 561 732	3 545 186
	CSU	490 685	874 598	173 671	965 718	73 787	2 578 459	363 565	933 412	2 178 433	141 308	88 651	3 705 369	6 283 828
South Bohemian Region	MF	11 062	476 357	33 195	-	93 981	614 595	3 249	98 634	438 259	52	310 469	850 663	1 465 258
	CSU	182 264	223 386	167 669	36 312	20 203	629 834	72 375	572 536	1 335 821	50 100	49 128	2 079 960	2 709 794
Pilsen Region	MF	5 334	1 631 534	60 374	106	44 149	1 741 498	127	76 805	292 186	473	274 780	644 371	2 385 869
	CSU	328 771	1 163 576	245 171	10 439	34 231	1 782 188	59 627	437 039	1 240 358	6 172	59 676	1 802 872	3 585 060
Karlovy Vary Region	MF	44	146 570	2 099	0	26 113	174 825	965	17 040	188 585	5	165 652	372 247	547 072
	CSU	97 384	145 255	49 631	i.d.	i.d.	316 418	48 216	298 816	387 162	1 257	22 714	758 165	1 074 583
Usti Region	MF	19 281	308 081	12 432	1 753	138 788	480 335	3 040	29 694	530 057	538	432 902	996 230	1 476 565
	CSU	874 755	476 919	474 636	391 293	299 277	2 516 880	652 060	644 469	4 758 477	44 580	468 195	6 567 781	9 084 661
Liberec Region	MF	381	119 736	9 129	0	29 979	159 226	1 116	16 338	327 797	17 846	202 473	565 571	724 797
	CSU	203 307	70 860	46 885	173 644	15 046	509 742	20 865	177 883	793 977	1 136 731	337 008	2 466 464	2 976 206
Hradec Králové Region	MF	301	321 338	69 785	0	59 995	451 419	79	62 768	298 996	838	325 762	688 443	1 139 861
	CSU	86 584	259 874	308 287	52 391	30 775	737 911	41 067	341 948	1 341 968	52 887	44 672	1 822 542	2 560 453
Pardubice Region	MF	5 880	365 582	87 720	54 411	47 786	561 379	3 849	58 499	314 231	12 915	182 195	571 690	1 133 069
	CSU	139 317	303 365	124 111	-	-	599 590	194 827	765 146	2 300 575	105 500	92 258	3 458 306	4 057 896
Vysocina Region	MF	9 714	635 675	95 006	-	59 111	799 506	5 353	58 799	339 042	912	189 852	593 958	1 393 465
	CSU	402 500	132 061	86 980	25 102	14 851	661 494	53 539	165 023	570 724	12 513	28 669	830 468	1 491 962
South Moravian Region	MF	1 575	1 466 220	228 107	15 843	148 967	1 860 711	4 795	334 763	850 953	5 412	518 856	1 714 779	3 575 490
	CSU	238 077	575 618	317 856	77 852	98 987	1 308 390	103 998	788 646	3 462 039	139 204	292 799	4 786 686	6 095 076
Olomouc Region	MF	1 513	1 187 050	4 809	2 038	69 141	1 264 551	1 001	84 206	430 788	409	326 445	842 849	2 107 400
	CSU	241 346	540 875	86 983	20 385	68 500	958 089	216 989	308 478	1 050 598	176 015	57 578	1 809 658	2 767 747
Zlín Region	MF	7 042	433 866	89 775	809	74 947	606 438	4 852	60 204	406 552	863	272 201	744 673	1 351 112
	CSU	279 966	375 476	234 426	26 844	7 269	923 981	117 011	516 163	1 426 501	17 543	55 956	2 133 174	3 057 155
Moravian-Silesian Region	MF	6 588	415 167	17 789	1 567	121 241	562 351	4 175	90 456	834 788	1 480	547 164	1 478 062	2 040 413
	CSU	1 744 467	633 637	141 353	94 826	237 067	2 851 350	422 958	901 388	3 049 835	82 930	143 391	4 600 502	7 451 852
Czech Republic Total	MF	93 208	9 354 951	725 604	76 526	1 009 998	11 260 288	38 704	1 185 144	6 095 314	42 521	4 263 585	11 625 267	22 885 555
	CSU	5 905 932	6 053 301	3 372 544	2 209 765	2 301 054	19 899 541	3 151 929	8 089 160	33 776 706	2 611 035	2 064 555	49 693 385	69 592 926

Source: CSU and MF

Environmental protection expenditures are recorded also by the Ministry of the Environment's allowance organization CENIA. At the present, the Agency summarizes and posts all the data (from CSU and MF CR) on its website. Even though the Agency declares that some data are taken over from the Ministry of the Environment, after a closer examination, it can be supposed the data are originally from the MF CR. The agency does not explain its CEPA 2000 methodology either and it is impossible to determine the differences in the application of the methodology according to CSU and MF CR as was done earlier in the text. The data published by CENIA are completed and cover both observed categories. The data are also used in other published documents.

When focused on the comparison of environment protection expenditures observed by CSU and MF CR, the numbers reported by MF CR are lower than those reported by CSU. It should be logical since CSU includes private investments as well. Interesting situation occurs in the item "others" where numbers from MF CR are higher than those from CSU. It is probably due to the different application of CEPA methodology by both institutions. MF CR includes expenditures concerning environmental protection administration into "others" while CSU does not. There is one more value that is higher according to the MF CR and that is "investment expenditures" in the area of "Waste water management". It may be caused by building sewage disposal systems in towns with a population of less than 500 because CSU does not observe data in such small communities.

As mentioned earlier, MF CR observes data by municipal budgets as well. For the purpose of this project these data are crucial, especially for researching the data in particular regions and municipalities. Although there is an obligation to post the data in the information system, some data in ARIS cannot be found. It is caused by many factors. At the present, it is impossible to obtain such data or it would be extremely hard to interpret them based on reports from CSU's sample surveys. It would not cover all data anyway. For those reasons, the authors of the project focus only on the analysis of the data from MF CR.

Conclusion

Environmental protection expenditures in the Czech Republic are closely observed in two ways – via sample survey of CSU and via the Ministry of Finance's information system ARIS. It looks like for purposes of detailed analysis of environmental protection expenditures from municipality budgets it is better to analyze only data from the MF CR. Those data provide more detailed and more complex view on the given issue.

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