The Effectiveness of Public Expenditure Evaluation - Case Study of the Czech Environmental Protection

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Abstract

In the public sector a considerable portion of resources is expended to cover some social needs that are not provided by the market at all or they are provided only insufficiently. Reasons for such situation are either market failure or distribution of incomes and wealth that is not considered by the society as satisfactory. The first reason is objective and can be explained by classical microeconomic instruments. The second reason for the public sector activity is social dissatisfaction with a certain level of distribution of wealth and incomes in the population. This reason is normative to a large extent and the achievement of a satisfactory situation will be different in every society (due to different cultural and historical factors).

In this contribution we will evaluate the government efforts to rectify market failures negatively influencing the environment and/or we will try to find out whether such an evaluation is carried out at all, and if it is, what its quality is like. We will focus on evaluation of the effectiveness of one of the market instruments of environment protection – public expenditure programmes. The outputs presented in this contribution come from the pilot phase of research that should cover all public expenditure programmes in future. This is the reason why only partial results are presented; nevertheless, the conclusions are quite interesting.

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2 The authors are grateful for the provision of valuable data sources to workers of the Institute for Economic and Environmental Policy of University of Economics, particularly to Prof. Ing. J. Jílková and Ing. D. Prušvic.
I. Summarisation of Hitherto Approaches to the Evaluation of Effectiveness of Market Instruments of Environment Protection

The use of economic instruments of environment protection comprising also public expenditure programmes has been discussed theoretically since the sixties of the 20th century. The goal of these discussions was to evaluate their possible application in practice and to compare their effectiveness and efficiency with direct regulatory methods used at that time. Advantages of economic instruments are mainly their static effectiveness (Baumol, 1972) leading to cost minimisation, dynamic effectiveness understood as strong incentives to the development of new, environmentally friendly technologies (Magat, 1978) and also a potential source of public budget incomes. Disadvantages are possible support to the monopoly behaviour of producers in the form of a decrease in the produced quantity of goods below the socially optimum level (Oates et Strassmann, 1984) and vagueness of impacts compared to direct regulation. In the eighties of the 20th century attention was paid to ex-ante evaluations of potential introduction of economic instruments into practice. Relatively extensive studies were devoted to potential application of economic instruments to the reduction and control of air pollution (e.g. Krupnick, 1986; Spofford 1984).

The introduction of economic instruments into practice on a larger scale in advanced countries dates back to the eighties of the 20th century. Their number increased dynamically because between the years 1987 and 1992 it increased by more than 25 % in OECD countries (OECD, 1996). Many used economic instruments were however of only marginal character and they could not influence the behaviour of economic agents by their construction and importance to a larger extent. A significant deficiency was also the absence of ex-post analysis of the effectiveness and efficiency of particular instruments. In addition, it was found out by ad hoc analyses that only 45 % of the used economic instruments had a significant impact on the behaviour of economic agents, on the contrary, no positive impact was explicitly proved in more than 30 %. For these reasons it appeared crucial to develop suitable methodology for ex-post evaluations of particular instruments and its application in practice. The need of evaluation has increased in the last years because economic instruments are used more and more frequently mainly in the course of implementation or preparation of environmental tax reform. A potential advantage of ex-post analysis is that it does not depend on the adoption of assumptions like ex-ante analysis.

The OECD concern in the evaluation of effectiveness of expenditure on environment protection increased in the eighties of the last century when the professional economic community and also economists in practice in various countries abandoned direct regulation and started to use so called economic instruments. Economic instruments have become increasingly important for prevention of environment pollution and reduction of a probability of environmental disasters.

According to the OECD definition economic instruments involve first of all environmental taxes and other levies, tradable emission permits, deposit-return system and also public expenditure that is divided into grants, soft loans and tax expenditure. To evaluate their effectiveness the same methodical approach as to the evaluation of effectiveness of the other economic instruments is used; especially the evaluation of environmental effectiveness, economic effectiveness and administrative and incurred costs is in the focus of interest.

As described above, currently there exists a relatively good theoretical framework applicable to development of methods for the evaluation of effectiveness of public expenditure on environment protection for the needs of a specific country. But some weaknesses can be identified in methods aimed at the quantification of benefits of particular programmes or at their value-for-money assessment. On the other hand, it is to emphasise that many expenditure programmes (not only in the Czech Republic) do not contain any basic parameters that would facilitate their systematic evaluation, such as setting of objectives or definition of examined indicators. In the following part the volume and structure of expenditure on environment protection will be quantified and the present unsatisfactory situation will be described from the aspect of evaluation of their effectiveness. To remove
deficiencies, simple methodology mainly based on the OECD theoretical framework will be proposed and the results of its application will be presented.

II. The Role of Public Expenditure Programmes for Environment Protection in the Budget System of the Czech Republic

Public expenditure on environment protection may be allocated through either institutional funding or programme funding. In the Czech Republic programme funding is preferred, particularly in the framework of central sources. The following table shows expenditure from three central sources (Ministry of Environment, State Environmental Fund and National Property Fund) and quantifies the importance of programme funding.

Table 1 The Importance of Programme Funding from Central Sources in the CR in 2003 (in mil. CZK)

<table>
<thead>
<tr>
<th></th>
<th>Ministry of the Environment</th>
<th>State Environmental Fund</th>
<th>National Property Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Expenditures</strong></td>
<td>4153,0</td>
<td>4761,8</td>
<td>59842,7</td>
</tr>
<tr>
<td><strong>In it: Environmental Programme Expenditures</strong></td>
<td>812,9</td>
<td>4635,4</td>
<td>2587,3</td>
</tr>
<tr>
<td><strong>Rate (%)</strong></td>
<td>19,6</td>
<td>97,3</td>
<td>4,3</td>
</tr>
</tbody>
</table>

Source: Czech Statistical Office, annual reports of National Property Fund and State Environmental Fund, ISPROFIN, own calculations

The table shows that programme funding is the most important in the State Environmental Fund because more than 97 % of all expenditure is allocated within this Fund. The ratio in the Ministry of Environment is much lower: the value of expenditure on programmes connected with environment protection is about 20 % of the budget of this chapter. The ratio of National Property Fund is the lowest of all. It is so because the expenditure is destined to cover costs associated with old environmental damage caused in the era of the communist regime, and this activity accounts for a small portion of the Fund’s activities. The calculations indicate that under programmes of environment protection more than 8 billion Kč per annum is allocated from the three most important expenditure sources, which is 0.3 % of GDP and 0.7 % of public expenditure. Therefore the problem of evaluation of their effectiveness should be solved.

For comparison, let us give the figures concerning two main programmes co-financed from the EU and focused on the environment sector: in the framework of ISPA a total of 356 million € was allocated to projects approved in 2000 – 2002, of this amount 354 million € to standard projects (15 projects) and 2 million € to technical assistance (6 projects). In the Operation Programme Infrastructure the allocation of 246 million € is envisaged from ERDF for the period 2004 – 2006.3

III. Analysis of the Present Situation in the Evaluation of Public Expenditure Effectiveness in the CR

The present situation in the evaluation of public expenditure effectiveness is not very satisfactory in the Czech Republic. This statement applies not only to public expenditure on environment protection but also to public expenditure as a whole. This fact was also confirmed by conclusions of several studies of international

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3 Our analysis does not involve the European Cohesion Fund for the time being, where the total allocation of 945 million € is envisaged for the CR in the period 2004 – 2006 (Source: the letter of the Director General of DG REGIO of the 17th Nov. 2003 about the financial allocation of CF for 2004 – 2006, Strategy of Cohesion Fund – implementation system, the wording in accordance with Government Resolution No. 125/2004). The Cohesion Fund resources should be allocated equally to projects in the environment and transport sectors.
organisations. E.g. in the OECD contribution from April 2002 “Increase in Effectiveness and Sustainability of Public Expenditure in the Czech Republic” it was stated that the evaluation of government interventions including public expenditure was not carried out systematically in the CR, and that there existed neither conditions nor incentives to do so, not even on the central level. Ex-ante evaluation was not performed de facto at all and ex-post evaluation mostly consisted only in the control of formal observation of budgetary and other legal rules.4

Systematic control is carried out de facto only by the Supreme Audit Office (SAO) but its activity is mainly aimed at the control of formal aspects. Sometimes effectiveness is also evaluated, but very scarcely. The authors’ team analysed audit reports of SAO performed in 2000 – 2003.

Majority of reproofs concerned formal aspects of expended funds. It was mainly a failure to comply with legal provisions laying down the awarding of public tenders and with budget rules. References to the evaluation of expenditure effectiveness are very scarce in audit reports. If they do appear there, these are mostly notices about a failure to observe some of the basic principles defined in programme documents.

In organisations responsible for the administration of public expenditure on environment protection the evaluation of effectiveness is not carried out systematically, and if it is so, its results are not available to the public. Effectiveness evaluation is mentioned only in annual reports of the State Environmental Fund where eliminated noxious substances are enumerated in the chapter “Benefits of Environmental Measures”. But with the exception of a short note referring to the costs of elimination of specific emission a comparison of these yields with the cost side is completely missing. So this chapter cannot virtually be considered as evaluation of the effectiveness of expended resources.

It is obvious that currently no evaluation of the effectiveness of public expenditure on environment protection is performed systematically, not even on the central level. If such an evaluation is carried out in some organisations, the methodology is not unified and the results are not published. The whole process is far from being transparent, and provided that they are published at all, potential results cannot be compared with evaluations in other organisations due to different methodology. Some improvement has been achieved as a result of implementation of pre-accession funds and SF/CF where ex-ante evaluations of programmes are carried out, but unfortunately they are not available to the public.

IV. Methodology of Empirical Research

In the period November 2004 – March 2005 in total 17 grant titles were evaluated: 14 titles are governed by national legislation, three titles are subject to European legislation and subsequently to national legislation. A list of evaluated programmes is given in Appendix 1. Now let us proceed to the particular scopes of themes that were evaluated in the framework of our research.

The methodology of evaluation was developed as a system of questions about the particular problems while OECD approaches (OECD, 1997; OECD, 2003) and other published studies (e.g. methodology of Economic Commission for Europe /ECE/) were used. Based on systematically and statistically evaluable background data this methodology makes it possible to carry out comparative analyses of government policy on a macro-level and mezzo-level. The method employs a comparison of the terms and results of implementation of various policy instruments, especially public expenditure programmes. The basic axis for the evaluation of instrument effects is so called intervention logic: problem (to be solved by the instrument in question), measures (the instrument itself), target situation (at which the instrument effects are aimed) and indicators (description of initial and target situation).

4 Projects supported from programme funds are selected on the basis of preliminary evaluation but insufficient ex-ante evaluations in the development and implementation of new programmes are a crucial problem.
Sources of information were websites of public bodies and professional institutions, professional literature and written questions. The aim was not to collect large sets of primary data in entities affected by the instrument (e.g. end beneficiaries, target groups, etc.) or to carry out our own evaluations of the effectiveness of public expenditure programmes because it is beyond the research team’s capacity.

V. Results of Empirical Research

Verifiably defined objectives and transparent selection of projects according to in-advance known criteria are basic prerequisites for effective allocation of public resources in the framework of public expenditure programmes. These and other reasons made us apply the following research and text structure.

In the first part of interpretation of the results of our empirical research the characteristics of examined instruments are described. We studied the objectives the instruments are aimed at (whether at improvement of the situation or return to the original situation or maintenance of the given situation); we examined and compared the time of their implementation and who the eligible applicant was (who could apply for a grant?), we analysed whether grants were returnable or non-returnable and whether financial participation was claimed.

In the second part of the text we summarise our findings about the role of institutions in implementation, about costs of the instrument implementation and results of determination of the ratio of costs in the programme/fund incomes.

In the third part of the text we investigate whether a specific tool has explicitly defined objectives because it is one of the basic prerequisites to carry out analyses of economic effectiveness. We also compared the level of specificity of project selection criteria. We evaluated particularly whether a linkage with the instrument objectives was claimed, whether quantified outputs were claimed, whether project sustainability, participant’s readiness and economic effectiveness of the project were evaluated. We consider this area as very important because the fundamentals for the evaluation of economic effectiveness of the grant title are laid here.

In the fourth part of the contribution we summarise the results of our investigation whether the evaluation of economic effectiveness is carried out and what the conditions for this evaluation are like including whether the instrument itself was evaluated before its introduction and whether its ex-ante effectiveness was compared with alternative solutions.

Characteristics of Examined Instruments

We found out that in 76 % of the titles the instruments were aimed at improvement of the situation while 18 % of the examined titles were aimed at return to the original situation and 6 % of the titles were focused on maintenance of the given situation. It can be deduced that the examined programmes are mostly of development character and are set to improve the situation in the supported area.

We examined from when the instrument was implemented because among other things, implementation effectiveness is conditioned by the level of experience with implementation and also by the time available for potential rectification of incorrectly set implementation terms (this problem was investigated in greater detail e.g. by Šumpíková et al., 2004). It is not possible to evaluate the instrument effectiveness in a satisfactory way if the implementation time is very short and only several projects were finished while their ratio in total volume of allocations is not very high (or if no project was finished). We acquired data on the duration of the instrument implementation in 14 titles. Of them, 50 % have been implemented for 3 – 5 years, 36 % (5 titles) have been implemented for 13 – 15 years, the implementation of one title lasts for 8 years and the implementation of one title takes place only one year. Hence from the aspect of their duration it is possible to evaluate the instrument effectiveness in at least 86 % of the titles but neither are such evaluations carried out nor are their results available to the public; from the aspect of the society it is so as if they were not carried out at all.
It is laid down by Act No. 128/2000 on Municipalities and by Act No. 129/2000 on Regional Administration that one of the duties of local and regional self-government authorities is to take care of the environment. For this reason we wanted to find out whether the rule of subsidiarity was in operation and whether the activities of these authorities were supported from central resources or if in the framework of the public administration reform the powers were transferred from the central government level to the self-government level without an accompanying increase in the volume of funds for the self-government. From public sources we failed to determine the development of the volume of paid grants that could be compared with the time schedule of the transfer of powers to local and regional self-government authorities, and then we could deduce whether the actually growing powers were accompanied by an increase in available resources.

From the aspect of their focus on eligible applicants the chronology of development in the examined programmes was as follows: in the early nineties programmes were focused on proprietors of former military reservations and on non-profit organisations, in 1992 other 3 programmes were adopted that were aimed at support to municipalities, non-profit organisations, unions of municipalities, organisations established by municipalities, and to business entities to a larger extent. Another programme was adopted in 1997 that supported municipalities and non-profit organisations; in 2000 another programme aimed at state organisations and business entities was introduced. In 2001 other two titles were focused on the same structure of applicants as the programmes in 1992. In 2002 other 4 instruments aimed at municipalities and state organisations were put into operation. All the above-mentioned entities may receive support in the framework of another programme that started in 2004.

Let us summarise that a majority of programmes is aimed at municipalities, unions of municipalities and municipality-governed organisations. Non-profit organisations are a group of eligible applicants of the same importance, and business entities are a less important, but still significant group. It seems at a glance that with the transfer of powers in the environment sector to self-government authorities the grant titles supporting these activities are developed parallelly. But this conclusion should be verified in future by the analysis of financial flows, i.e. it should be proved whether original direct grants from the state budget were not only replaced by specific grants in the framework of public expenditure programmes.

In the examined sample all titles were of the grant type: 94 % of the titles were non-claimable grants and 6 % of the titles were claimable grants. It means that most grants are allocated on the basis of project tender; it is one of the instruments of increasing the effectiveness of public expenditure. In further research we would like to pay attention to linkages between the type of support and the volume of allocations.

The applicant’s financial participation is required in 76 % of the titles, so it is not required in 24 %. These ratios suggest that in an overwhelming majority of the examined titles there is an effort to increase the responsibility of participants and their interest in project results through financial participation. In the next step it will be interesting to determine the ratio of required participation in total project costs and total eligible costs.
Role of Institutions in Implementation, Implementation Costs

In our research we tried to elucidate the responsibility of particular institutions for programme implementation and whether the related costs were monitored. The following table shows the involvement of institutions.

Table 2 Participation of Institutions in the Implementation of Examined Programmes

<table>
<thead>
<tr>
<th></th>
<th>SEF</th>
<th>NUTS III.</th>
<th>ME</th>
<th>MRD</th>
<th>MT</th>
<th>MF</th>
<th>MD</th>
<th>MA</th>
<th>SFTI</th>
<th>∑</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>Administration</td>
<td>9</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>16</td>
<td>48</td>
</tr>
<tr>
<td>Monitoring</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Publicity</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Financial control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>3</td>
<td>21</td>
<td>11</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>16</td>
<td>8</td>
<td>98</td>
</tr>
<tr>
<td>In %</td>
<td>32%</td>
<td>3%</td>
<td>21%</td>
<td>11%</td>
<td>7%</td>
<td>0%</td>
<td>1%</td>
<td>16%</td>
<td>8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: The sum does not indicate 17 programmes because especially in programmes supported by the EU several bodies were/are involved in the policy life cycle.


The table shows the highest participation of SEF in implementation of selected programmes (32 %), followed by ME, another important agent (21 %). As SEF was established by the Ministry of Environment, it is evident that more than a half of the implemented programs for environment protection and planning is in the competence of departmental ministry (53 %). Another important body is Ministry of Agriculture participating in the implementation of 16 % of programmes, and MRD with participation in 11 % of the examined programmes.

We should be aware of the fact that these percentages do not document the resultant real work load of the particular institutions in terms of preparation, administration, monitoring and popularisation (full use of capacities and costs incurred e.g. by the function of a coordinator of programme preparation will differ from the use of capacities and costs of the institution that participated in the programme preparation only in the form of comments on proposals, etc.). The above percentages indicate the frequency of involvement of the particular institutions in the given phases of implementation process; nevertheless, we are convinced that this indicator may be suitable for at least an approximate evaluation of the situation whether departmental institutions are really engaged in environment protection.

To evaluate the real work load of the particular institutions we intended to determine costs related with the instrument implementation, especially administrative costs. Unfortunately, the research shows that the level of costs of the instrument implementation cannot be determined from sources commonly accessible to the public in
76.5% of programmes. We revealed that the institutions published very brief information on their costs. If any data are publicly available, they inform about total costs of the institution’s operations, not about the costs of implementation of instruments lying in their competence. Hence the publicly available structure of data is not sufficient for serious evaluation of programme costs because each of the institutions performs different functions in several programmes at once, so from the total costs of the institution’s operations it is not possible to determine separate real costs of each of the administered programmes. In the remaining cases we found out that the ratio of implementation costs in the volume of administered expenditure was approximately 3%.

In the framework of research we also examined the **ratio of costs in the incomes of the programme/fund**. In some cases this indicator was meaningless because the programmes were fully financed from public sources, i.e. they did not have any incomes. Based on available data we managed to estimate only in two titles that the average ratio of costs in the incomes of the programme/fund was 5%.

**Criteria for Project Selection, Linkage with the Instrument Objectives**

We can state on the basis of research that 71% of the titles have **explicitly declared objectives**; it makes up at least the first fundament for evaluation of the instrument effectiveness (no matter what the quality of these objectives is like, whether they can be quantified, controlled, determined from independent sources, whether they are credible and if the evaluation is carried out finally). Almost a third of the examined instruments was found not to have any explicitly defined objectives. We revealed that these were national grant titles without exception; two of them have been implemented in the CR for 14–15 years, others have been implemented for 3–5 years.

Among the examined 16 non-claimable titles and 1 claimable title only about a half of them has relatively **in detail defined criteria of project selection**; therefore many times decisions of selection commissions may be discretionary. Criteria can be evaluated as vague, ambiguous and unclear in 41% of the titles in total.

We compared whether the criteria comprised an explicit requirement for linkages with strategic objectives of the instrument, economic effectiveness of proposed project, whether the applicant’s readiness was evaluated, whether quantified outputs were required, whether project sustainability was monitored after support termination. The highest frequency was found out in the criterion of linkage with strategic objectives of the instrument and economic effectiveness (equally in 82% of the cases).

The evaluation of relative importance of the other above-mentioned criteria showed that quantified outputs (required in 71% of instruments) and project sustainability (required in 65% of instruments) were quite important criteria. Participant’s readiness is a less important criterion (59%).

Deeper investigations into a limited number of projects indicated that the requirement for quantification of economic effectiveness is one problem, and the quality of such analysis and the influence of the results of analysis on changes in the project proposal are problems almost independent of each other. We also revealed that project evaluators were not competent enough to evaluate economic effectiveness.

In general, with regard to a diversity of project outputs the comparison of their economic effectiveness, and consequently selection of projects according to this criterion, is a very difficult task, sometimes impossible to perform (it is a general problem of public expenditure programmes that are evaluated not only by financial analysis but also by economic analysis comprising estimations of social impacts of projects). A remarkable finding in this context is that many evaluators do not know in detail CBA principles and methods of economic effectiveness calculations and that their judgements are rather intuitive; it is also remarkable that e.g. applicants consider CBA as an obligatory appendix to the project elaborated independently of the project and that CBA results are not usually included in changes in project proposals.

We believe that a requirement for output measurability is essential because it is the basic prerequisite for the evaluation of expenditure programme effectiveness. Project sustainability after termination of support to the
grant title (required in 65 %) is important so that viable activities will be implemented. The control of project sustainability and drawing of conclusions if any irregularities were found out seem to us problematic (e.g. conclusions to return the allocations, etc.).

We consider the participant’s readiness (59 %) as important because it influences project success and sustainability in a crucial way – if the participant’s readiness to solve a project is not satisfactory, it may seriously threaten the implementation of the project or its termination and undoubtedly it will influence economic effectiveness of the project (e.g. when it becomes evident that the municipality cannot meet its commitments ensuing from the project from its own resources and if it has to take a bridging loan, the costs of the bridging loan – administrative costs + interest – should be included in the economic analysis, and accordingly it should be re-evaluated whether the project is economically effective and what the sunk cost is like at the given moment or its implementation should be suspended/stopped).

**Evaluation of Effectiveness and Conditions for Effectiveness Evaluation**

We found out that a very problematic area where hardly any publicly available data were at disposal was the area of ex-ante and ex-post evaluation of the effectiveness of instruments. As for the instruments co-financed from EU funds, in two out of the three instruments we positively know that ex-ante analyses were carried out although they are not publicly available; from the aspect of the public as if they were not carried out at all. In all the other instruments we can state that no evaluation studies have been published and it is not possible to find out whether they have ever been performed. With regard to the requirement for transparency of public expenditure such a situation is fully dissatisfactory.

As for the evaluation of economic effectiveness, in the 17 examined titles the time for effectiveness evaluation has been relatively short in one title because it was introduced in 2004; however, the other titles have not apparently been evaluated although there has been time enough for their evaluation. According to our research the existence of three instruments is considered as beneficial because they are aimed at prevention from damage or they are implemented in “higher interest” (e.g. the EU claim) but it cannot be taken for an economic analysis of the implement effectiveness. In the other 13 titles (it is soon to carry out the evaluation of one title) we failed to find out any publicly available data on analyses of economic effectiveness of the instrument; hence the transparency of this public expenditure is almost null.

In organisations responsible for the administration of public expenditure on environment protection the evaluation of effectiveness is not carried out systematically, and if it is, the results are not accessible to the public. Effectiveness evaluation is mentioned only in annual reports of the State Environmental Fund where eliminated noxious substances are enumerated in the chapter “Benefits of Environmental Measures”. But with the exception of a short note referring to the costs of elimination of specific emission a comparison of these yields with the cost side is completely missing. So this chapter cannot virtually be considered as evaluation of the effectiveness of expended resources.

Our research shows that no information is available to the public about a possibility of using alternative instruments, no comparative analyses based on ex-ante evaluations of instruments have been published nor is it evident that applying these analyses it would be decided on the most effective scenario of the solution to a specific problem at which the instrument is to be aimed.

**VI. Conclusion**

The above-mentioned conclusions of empirical research indicate that currently the evaluation of effectiveness of public expenditure on environment protection is not carried out systematically, not even on the central level. If such evaluation is performed in the particular organisations, its methodology is not uniform and results are not published. The whole process lacks transparency, and potential results, in case they have been published, cannot
be compared with evaluation in other organisations due to different methodology. Some progress was made by implementation of European pre-accession funds, Structural Funds and Cohesion Fund where ex-ante evaluations of programmes are carried out, but unfortunately they are not publicly available.

As stated above, among other things, verifiably defined objectives and transparent selection of projects according to in-advance known criteria are the basic prerequisites for effective allocation of public resources in the framework of public expenditure programmes. On the basis of the analysis of a part of expenditure programmes aimed at environment protection the authors’ team revealed that these parameters were far from being commonly used in the Czech Republic.

Clearly defined objectives are missing in a third of programmes while their quality in the other programmes is dubious. Clearly defined objectives, the achievement of which can be controlled, are scarce. The situation is still worse in criteria for project selection because 41% of them are very vague. Therefore there arise opportunities for corruption or clientelism.

Our research has revealed that the present situation in this area is not good. It is also documented by an unsatisfactory situation in other areas such as monitoring of costs associated with programme implementation, etc. We need not remind that ill-defined objectives or no objectives, the achievement of which can hardly be controlled, and non-transparently established criteria of selection result in the ineffective allocation of public resources. It decreases effectiveness of the public sector as well as general economic effectiveness.

Bearing in mind the present situation, any attempts to carry out ex-post evaluations of public expenditure programmes are useless but it is necessary to start general reconstruction of basic parameters of existing programmes.

The authors’ team and their colleagues will continue to carry out analyses of other expenditure programmes aimed at environment protection. Based on hitherto experience, unfortunately it is to state that we cannot apparently expect any marked improvements of the results. The evaluation of public expenditure (not even in the form of the control of basic technical parameters of called programmes) is not a common practice in the Czech Republic for the time being, and nothing else can be done than to regret that the government’s reform efforts have been focused on the income side of public budgets until now while public expenditure is reformed only verbally.
Appendix 1

A list of analysed instruments

1. Programme of renewal or construction of sewerage systems and sewage treatment plants
2. Protection of drinking water resources or natural medicinal springs and springs of mineral waters, or measures aimed at pollution sources in the territory of national parks and protected landscape areas
3. Enlargement of sewerage systems
4. Enlargement or intensification of existing municipal sewage treatment plants
5. Instrument for Structural Policies for Pre-Accession (ISPA)
6. OP Infrastructure
7. Liquidation of damage caused by floods to state-owned waterworks
8. Support to renewal, clearing and reconstruction of ponds and water-storage reservoirs (229 210)
9. Prevention against floods
10. State aid to the renewal and protection of the territory afflicted by a disaster, provided by Ministry of Agriculture
11. Liquidation of damage caused by the Soviet army
12. Programme of environmental training, education and popularisation
13. Programme of support to environmental education and popularisation
14. Programme of support to remediation measures and reclamations of old landfills
15. Programme – medium-size water resources
16. Programme of regeneration of prefabricated blocks of flats
17. Support to non-government non-profit organisations

List of references:
Baumol, W. J., (1972): On Taxation and the Control of Externalities, American Economic Review
Bulletins of Supreme Audit Office 2000 – 2003
OECD (1997): Evaluating the Efficiency and Effectiveness of Economic Instruments in Environmental Policy, Paris
Strategic and programming documents, legal documents related to the analysed instruments