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KISS ANDRÁS:

**EVALUATION METHODOLOGY OF
THE EUROPEAN UNION ENVIRONMENTAL SUPPORT
SYSTEM BASED ON THE EXAMINATION OF THE
HUNGARIAN COHESION FUND PROJECTS**

PhD THESIS SUMMARY

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Background to the research

The topic of my PhD dissertation was chosen for the following reasons: The question of environmental protection and the state of the environment of our country will become major issues in the coming years, even decades. In the field of environmental developments there is a growing demand for not to be satisfied with just talking about the facts and referring to handing over ceremonies, but to analyse also the deeper connections of the developments and improve the function of the system, as much as possible.

The environmental protection projects supported by the EU – even though they have similarities – are all unique, and the number of these projects cannot allow for statistical analysis. Furthermore, the evaluation of the supports for the Cohesion Fund projects is not a common practice yet, and is particularly not so in Hungary.

I am of the opinion that the actuality of the issue is unquestionable, and in consequence of this the research connected to this topic is very useful indeed. Besides this, I chose the topic while having worked in the Development Directorate of the Ministry of Environment and Water, where I have been daily confronted with the topic, and its problems and questions.

Most of my scientific publications have also been written in connection with my dissertation topic: I tried to highlight the public procurement side of the support system, to show the points of view of the participants, and describe the possible evaluation methods as well. Probably the last mentioned research gave the most input to my dissertation, since its focus was to develop an evaluation methodology.

I consider that the teaching activity (that was not obligatory for me) in the relevant department of the university was part of my scientific work, in the course of which I gave lectures for both the full-time and correspondent students about regional policy and the EU supports in the field of environmental protection.

Objectives

The most important task was to accurately set the research topic, since the environmental protection is a very broad concept. The starting point of the thesis was that the environmental projects, particularly of the Cohesion Fund supports should be examined and analysed. These projects are mainly wastewater and waste management investments, so these kinds of information have been collected during the research. In this context I would like to underline those elements of my dissertation which are of high importance and clearly show what and how I have been dealing with them during my research:

- (1) **European Union:** Between 2007 and 2013 the vast majority of the environmental developments **will be supported by the European Union**, so it seems evident that one should deal with the evaluation and effects of the EU projects. Of course the domestic environmental supports will be presented too, because they have a useful input to the study of examination of the European Union supports. Due to the European Union link it was necessary to present the regional policy and inside it the analytical presentation of the European Union environmental protection developments as well.

- (2) **Evaluation method:** **The elaborated (and further developed) evaluation method for the environmental protection projects** makes the main part of my dissertation which was applied for both the projects and the supporting system¹. The supporting system, the programmes and the projects are closely linked, since the projects constitute the content of the programmes, and the projects realise the objectives which are determined by the programmes. Even the institutional system, which can be analysed on the programme level, should not be independent from the projects, because these very projects form the programme and execute the objectives set in the programme. **During the elaboration of the evaluation method I took the existence of the support as a fact, and the evaluation was made to improve the system.**

¹ The term “supporting system” refers to all the parties involved in project preparation and implementation (e.g. beneficiaries, intermediate bodies).

- (3) **Cohesion Fund:** In case of the European Union environmental investments the Environment Protection and Infrastructure Operational Programme (KIOP) and the Cohesion Fund projects make the substance of the support. Inside it two factors explain the selection of the 25 Cohesion Fund projects and the supporting system: 1. This subject field was **less examined** in the past (mid-term evaluation was not required), so the result of the research can be a novelty. 2. Most of the projects will be closed by the end of 2010, therefore the possible modification proposals can constitute **practically useful** experiences.

Examination methods

In my PhD dissertation I used the EMI - AMV method (named by me) for the research methodology of data processing:

EMI / AMV => E=Analysis, M=Methodology I=Verification.

This method is similar to the heuristic problem solving method of Duncker, which was further developed [MOGYORÓSY, 2006a], but differs from it by the followings. The data collection is the basis of all research work that I do not consider necessary to highlight any further. This is followed by the data processing and analysis, to which algorithms, existing methods [e.g. TORMA, 2007], even computer programmes can be used. In my case it was necessary to elaborate a methodology, in which I was assisted by the overview and analysis of the existing systems.

Models are available (e.g. HERMIN) for the evaluation of the supports, but in my view, the use of these models, in case of environmental protection projects, can be difficult or completely inapplicable. The usefulness and appropriateness of the elaborated methodology had to be examined also in practical applications, which was the third part of my dissertation. The final objective-framing or final proposal [MOGYORÓSY, 2006a] also cannot be missing from my work, but it is also part of every research work.

Summarizing: the EMI describes the research method between the input (collecting of information) and output (proposals).

Several instruments were used in my research, which helped working out my dissertation: two questionnaire surveys, 16 in-depth interviews and one focus group interview have been carried out. The results of these are incorporated into the subsequent chapters of my doctoral dissertation.

New scientific results

Thesis 1:

The European Union's environmental grants show growing importance since 2000, parallel with the decreasing domestic support possibilities.

Between 1990-2000 the European Union's environmental protection grants were limited to PHARE-grants. From 2000 on the pre-accession fund also emerged, from which the ISPA provided the most important resources for the protection of the environment. From 2004 the structural funds and the Cohesion Fund provided significant resources for the environmental protection objectives.

The transforming of the domestic grants to targeted estimates (1999) resulted merely in the separate handling of the resources, however, by the appearance of the European Union grants the government subsidies have continuously been reduced. This process has also been strengthened because of the economical status of Hungary. **The governments in power more and more utilised the domestic resources to financing the national contribution of the EU grants, which is against the additionality principle, one of the basic principles of the European Union regional policy.** Only the election years meant some positive shifts, but from 2007 on there are practically very limited environmental protection resources which are not from EU support.

My hypothesis is verified by the graph on the analysis of supports, indicating the reduction of the domestic resources, according to which the total value of yearly domestic resources has in 2006 been decreased to one quarter of the year 2000 figures. Meanwhile the annual rate of the European Union's support has more than tripled already in 2004.

Thesis 2:

The supporting system for managing the environmental resources in Hungary is only restrictedly suitable for an efficient use of the European Union grants. (4), (6)

Every part of the project-cycle has been fully examined with the help of the complex mid-term support evaluation. Efficiency testing is a strong and highlighted part of the

methodology. The questionnaire survey and the in-depth interview showed that the preparedness of the beneficiaries is not adequate to the suitable and efficient handling of supports of such a scale. This is confirmed even by those who are receiving assistance, as 85 % of them stated that they should develop further their own project management skills. The lack of proper preparation, bad planning and insufficient professional knowledge caused significant time- and cost-overruns at the projects.

While some improvements can be detected in connection with the regularity and competence, the accuracy and efficiency of grants is less typical for the beneficiaries, even after several year use of the supports. As far as the granting organizations are concerned, the transfer of the accumulated experience and knowledge is hindered by a large-scale fluctuation.

The assessment carried out amended the hypothesis such, that based on the results the supporting system is only restrictedly suitable for an efficient use of the resources.

Thesis 3.:

The delay in the implementation of the Cohesion Fund environmental projects is mainly due to the efficiency problems of the system. (1), (2), (3), (4), (6)

The implementation of the Cohesion Fund projects – in most cases – is significantly delayed. The analysis of this question and the exploration of the reasons can be very useful to avoid further delays and implement our projects according to the deadline of the 2007-2013 period.

More elements of the system have been examined during the evaluation and the following areas, the “3K”s, were the most critical: 1. public procurement (Közbeszerzések), 2. implementation (Kivitelezés), 3. payments (Kifizetések).

Until 2004 the public procurements were slow, due to the problems of co-operation with the EU Delegation and the rather frequent changes of the regulations. This was followed by the shift from the PRAG system to the Hungarian procurement system (Kbt) (which meant a 1-1,5 year delay by itself), since then the problems raised by the beneficiaries and the protracted negotiations slow down the launching of tenders.

The delays of implementation are mainly caused by weak preparation and planning, while the unforeseen physical conditions, or the opposition of the population less delay the works. The unfulfilment of the planned payments are caused by the problems of own contribution and the payment disputes, and evidently by the delays of the public procurements, as well as the introduction in 2004 of the EMIR system.

The problems of efficiency have already been presented in the evaluation chapter, thus, it can be concluded that the efficiency problems of the support system have led to the delays in project implementation, thereby confirming my hypothesis.

Thesis 4:

The operation of the implemented facilities and the sustainability of the projects will mean the greatest challenge in the coming years for the Cohesion Fund environmental projects. (4), (5)

According to the current regulations, the Cohesion Fund projects should be finalized by 31st December 2010, so the emphasis is to be shifted from the implementation to the operation of the projects.

As far as the operation and maintenance is concerned, the supporting system received medium ranking, even not acceptable projects were found as well. This suggests that the beneficiaries have not prepared themselves for the maintenance period, furthermore, in a number of cases they would have to face operational problems caused by the poor design.

The situation is aggravated by the fact that the municipalities, due to their role of establishing the wastewater and waste management tariffs, make decisions in which they are governed by non-technical aspects also. The determination of not appropriate fees could, however, jeopardize the long-term sustainability of the operations.

I think that the result of the evaluation and the experiences verify the assumption formulated in the hypothesis.

Thesis 5:

In certain areas the effect of Cohesion Fund environmental projects, can be measured on macroeconomic level also. (5), (7)

Although only some of the Cohesion Fund projects have been completed so far, and the evaluation of the effects is partly a fiction yet, nevertheless, based on the evaluation, it can be assumed – **in contrast to the hypothesis** – that there are several areas where the effect can be measured on macroeconomic level.

The projects payments, set against the yearly expenses of environmental protection investments, have shown a steady increase since 2003, exceeding 70 % in 2006 in the waste management field. In 2007, 60 % of the wastewater and waste management projects were connected to the Cohesion Fund projects. This of course is closely linked to Thesis 1, since the other governmental expenditures significantly fell.

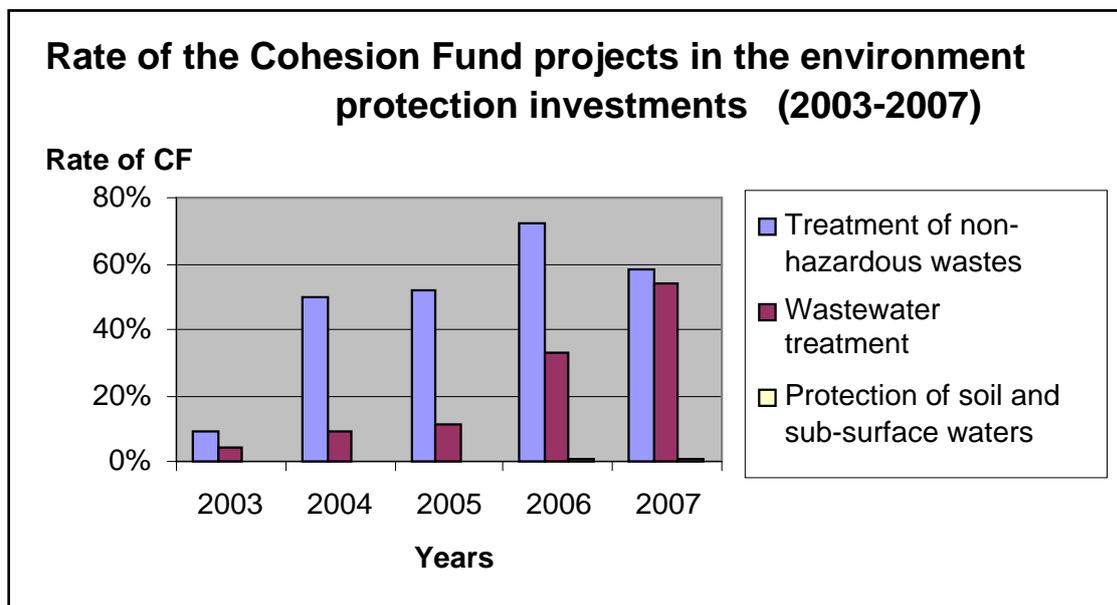


Figure 1. Rate of the Cohesion Fund projects in Hungarian environmental investments

Source: own resources

By examining the output indicators of the projects it can be concluded that the Cohesion Fund projects significantly increase the **capacity of transfer stations and composting plants**, and the **number of waste-yards implemented of local resources will almost be tripled**. In the

area of wastewater collection and treatment a significant proportion of the increment of household connections is also provided by the Cohesion Fund projects.

Therefore it can be concluded that the results of my research contradict my hypothesis, and based on this I formulate a new research result: **the Cohesion Fund environmental supports – in certain areas – can have measurable effects even on macroeconomic level.**

Thesis 6:

The European Union's environmental protection support had an effect on the spread of project based mentality and the dissemination of environmental standards. (4), (5), (6)

During the complex mid-term support evaluation I paid special attention to the examination of the indirect effects, which have already appeared during the implementation of the projects. The questionnaires and interviews also confirmed that there are two areas where, in consequence of the indirect effect of projects, significant changes have taken place.

The development of the **project based mentality** was predictable, since it was a requirement of the supporting side, and fortunately the acceptance was very high by the beneficiaries. In the result of the projects, several municipalities and consulting companies acquired knowledge, by which they can effectively manage even a multi-million-euro investment.

It has been proved that it is not only the takeover of the community policies which is important, but the **projects** themselves generated such kind of changes which helped in **disseminating the environmental standards**. Such area was the public procurement regulation in case of the selection of the waste management projects' operators, or the necessity of the elaboration of a waste management strategy.

Thesis 7:

A methodology can be developed for the evaluation of environmental protection infrastructure projects, which helps evaluate the projects and the supporting system handling them. (1) – (7)

Perhaps the most important thesis, the main objective of my PhD dissertation, was to elaborate a methodology which provides applicable means for the evaluation of environmental protection infrastructure projects.

The **complex mid-term support evaluation** cover the whole spectrum of the project life-cycle, it has multiple methodological instruments and gives the possibility that the evaluator himself/herself chooses the most appropriate instrument under the circumstances. During the evaluation several aspects have been ranked, but those areas in which “only” data were presented also provided useful information.

By the evaluation methodology, I was able to evaluate the selected projects (KIOP and Cohesion Fund) and the Cohesion Fund supporting system, and received information, which were evaluable and suitable for feedback, so in my opinion my hypothesis has been verified.

The complex mid-term support evaluation is a method which is appropriate to evaluate the ISPA and Cohesion Fund projects accepted between 2000-2006, and the supporting system handling the projects. Furthermore, it is applicable to the extended mid-term evaluation of any other project based environmental infrastructural supporting system.

References

/for the references in the thesis paper/

[MOGYORÓSY, 2006a]: A Kohéziós Alap felhasználása Magyarországon hazai és nemzetközi tapasztalatokra épített intézményrendszeri megközelítésben, doktori értekezés, Gödöllő, 2006.

[TORMA, 2007]: Torma, A.: A környezeti teljesítményértékelés aggregáló módszerei és az anyagáramelemzés kapcsolatrendszere – egy integrált vállalati modell megalapozása, doktori értekezés, Budapest, 2007.

[RUPP, 2008]: Interjú Rupp Tamással

Publications related to the thesis

1. Kiss, A.: ISPA experiences in the new Member States focusing on the environment projects, EU Working Papers, 2007/2, pp. 19-30.
2. Kiss, A.: Az ISPA- és Kohéziós Alap-támogatással megvalósuló környezetvédelmi projektek közbeszerzéseinek tapasztalatai, Környezetvédelem, 2006/4, pp. 26-27.
3. Kiss, A.: ISPA és Kohéziós Alap – környezetvédelmi projektek közbeszerzéseinek tapasztalatai, ÖKO, 2006. XIV. évfolyam 1-2. szám, pp. 119-129. (előző cikk bővített verziója)
4. Kiss, A.: A környezetvédelmi Kohéziós Alap támogatások értékelése a rendszer szereplőinek szemszögéből, Európai Tükör, 2007/5, pp. 101-111.
5. Kiss, A.: A környezetvédelmi Kohéziós Alap projektek értékelésének módszertani lehetőségei, Európai Tükör, 2007/9,
6. Kiss, A.: Az ISPA környezetvédelmi projektek végrehajtásának tapasztalatai, Környezetvédelem, regionális versenyképesség, fenntartható fejlődés c. konferenciakötet, Pécs, 2005. május 20-21., IV. kötet, pp. 234-242.
7. Kiss, A.: Az Európai Unió támogatások gazdasági hatása a magyar környezetvédelmi szektorra, A magyar gazdaság versenyképessége c. konferenciakötet, Budapest, 2006. február 9., pp. 258-268.

Further publications

1. Valkó, L. – Kiss, A.: Eco-labels in Hungarian Public Procurement, Periodica Politechnica, Social and Management Sciences, Vol. 13, No. 2, pp. 107-120 (2005)
2. Kiss A.: A környezetvédelmi Kohéziós Alap projektek értékelésének módszertani lehetőségei, COMITATUS önkormányzati szemle, 2007. április, (az 5. cikkel megegyező tartalmú)
3. Szlávik, J. – Füle, M. – Csete, M. – Pálvölgyi, T. – Csigéné Nagypál, N. – Kiss, A.– Torma A.: A KÉP Project gazdasági munkacsoportjának összefoglalója a munkacsoport által végzett kutatás céljairól és a munkacsoport javaslatainak tesztelésére létrehozott kísérleti project (Kis-Balaton szubrégió) eredményeiről, Tájökológiai Lapok, 6. évf. 1-2. sz., 2008., pp. 95–105.
4. Kiss A.: Az európai uniós környezetvédelmi támogatások magyarországi hatásának elemzése, PhD-konferencia, Budapesti Corvinus Egyetem, 2008. november 6.