

**CENTRE FOR REGIONAL STUDIES
OF HUNGARIAN ACADEMY OF SCIENCES**

DISCUSSION PAPERS

No. 73

**Governance for Sustainability –
Two Case Studies from Hungary**

**by
Ilona PÁLNÉ KOVÁCS – Viktor VARJÚ (eds.)**

**Series editor
Zoltán GÁL**

**Pécs
2009**

The research was financed by the G-FORS (Governance for Sustainability)
FP6th Framework Project



INTERREG III B CADES



Authors

Ilona PÁLNÉ KOVÁCS, scientific adviser, Centre for Regional Studies of HAS
Viktor VARJÚ, junior research fellow, Centre for Regional Studies of HAS
László FARAGÓ, senior research fellow, Centre for Regional Studies of HAS
István FINTA, research fellow, Centre for Regional Studies of HAS
István FODOR, scientific adviser, Centre for Regional Studies of HAS
Viktor GLIED, PhD Student, University of Pécs, Multidisciplinary Doctoral
School

ISSN 0238–2008
ISBN 978 963 9899 16 2

© Ilona PÁLNÉ KOVÁCS – Viktor VARJÚ
© Centre for Regional Studies of the Hungarian Academy of Sciences



2009 by Centre for Regional Studies of the Hungarian Academy of Sciences.
Technical editor: Ilona Csapó.
Printed in Hungary by Sűmegi Nyomdaipari, Kereskedelmi és Szolgáltató Ltd., Pécs.

CONTENTS

1	Introduction	5
2	Theoretical Frameworks – Knowledge, Governance and Sustainability	5
2.1	Knowledge and Governance	6
2.2	Sustainability	8
3	Strategic Environmental Assessment of the South-Transdanubian ROP in Hungary	9
3.1	Hungarian Planning System and the Second National Development Plan (SNDP)	9
3.2	The National Legislation on SEA	10
3.2.1	The Actors of the Environment Assessment	10
3.2.2	The Process of SEA Making	11
3.3	The Operative Programming of South-Transdanubia (STOP)	11
3.4	The Strategic Environmental Assessment (SEA)	14
3.5	The Action Arena	15
3.5.1	Involved Actors	15
3.5.2	Absent Actors	18
3.5.3	Observed Modes of Interactions	19
3.6	Governance Arrangements – Predominant Hierarchy	21
3.6.1	Rules in Use	22
3.7	The KnowledgeScape	23
3.7.1	The Dominant Steering, Institutional Knowledge and Holders	23
3.7.2	Social/Spatial Distribution of Knowledge	24
3.7.3	Excluded/Silent Everyday/Local Knowledge and Holders	24
3.7.4	Reflective Knowledge	25
3.7.5	Synergies/Contradictions between Knowledge Forms	25
3.7.6	Knowledge Deficits	26
3.8	Interaction Between Knowledge and Governance Arrangements	26
3.8.1	Relation of Knowledge and Governance Arrangements and the Learning Process	26
3.9	The conclusions: ‘Governance for Sustainability’	27
3.9.1	Assessing Sustainable Development	27
3.9.2	Legitimacy	27
3.9.3	Synergy of Governance and Knowledge for Sustainability	28
4	EU-ETS in Pannonpower Power Plant – Mobilising Knowledge for Efficient and Sustainable Solutions in the Shadow of Hierarchy and the Messiness of Networks	29
4.1	Case History	30
4.1.1	The Relations of Market, Hierarchy and Networking	32
4.2	The Influence of Key Themes and the Respective Forms of Knowledge	34
4.3	Filtering Mechanisms – Knowledge and Governance	39
4.4	Conclusions	42
	Acknowledgement	44
	References	45

List of figures

Figure 1	KnowledgeFlower.....	7
Figure 2	Micro-regions, counties in South-Transdanubian Region.....	13
Figure 3	Hungarian System of regional policy and the management of ESF.....	16
Figure 4	The South-Transdanubian regional planning network.....	17
Figure 5	The Main Roles/Competences of the Actors.....	18

List of tables

Table 1	Conclusions.....	43
---------	------------------	----

1 Introduction

The EU 6th Framework Programme entitled Governance for Sustainability (G-FORS – www.gfors.eu, Contract No.: 028501) was aimed at the analysis of different governance forms from the aspect of sustainability. The consortium including ten partners¹ was to investigate the following topics: how the environmental regulations and rules fit in the decision making processes, who are the most important actors of the decisions and how intensive and in which quality are those involved, what type of knowledge or cognition is necessary to enforce environmental interests?

The task of the Hungarian team was to prepare two case studies within the theoretical and methodological frameworks elaborated by the consortium. The first case study's topic was the process of preparing strategic environmental assessment (SEA) on the example of the South Transdanubian Operational Programme of the II. National Development Plan, while the topic of the second was the analysis of the EU's emission trade scheme (EU-ETS) on the example of the Pécs Pannonpower Company from the aspect of the Hungarian participation. The current study is worth the attention not only due to its interesting theoretical and methodological dimensions, but it is also important in terms of the future shaping of domestic environment management system.

2 Theoretical Frameworks – Knowledge, Governance and Sustainability

Following the millennium the large mass of law approximation tasks was characteristic for the Hungarian environmental legislation, resulting that by today there are occasionally to be found such community regulations, that would not have yet been implemented in the Hungarian legal system and that is also a transitional situation (*Horváth et al. 2004*).

The measures, norms and assessments (environmental impact assessment, environmental examination, strategic environmental assessment, the EMAS system, ISO 14001, EU's sixth Environmental Action Plan, etc.) serving the protection of nature are to protect in the natural, build and social environment from the consequences of human activities. However, we have to build consciousness that it is

¹ University of the West of England, Bristol, Darmstadt University of Technology, University of Warsaw, University of Twente, Politecnico di Milano, University of Göteborg, Norwegian Institute for Urban and Regional Research, Panteion University, Centre for Regional Studies of Hungarian Academy of Sciences, Institute for Regional Development and Structural Planning, Erkner.

not sufficient alone to regulate. But it is also necessary to call attention to the problems of governance in environmental policy.

A necessary but satisfactory condition in environment policy is the existence of regulations and legislative frameworks. In order to achieve efficient environment policy it is necessary to establish a decision making mechanism bearing the adequate structure and conglomerate of knowledge, able of interest harmonisation.

2.1 Knowledge and Governance

The professional starting points of the project were formulated on knowledge sociological and political scientific basis, therefore the approach was not focused on the outcomes of the different policies, respectively on professional features of environment assessment methods, but much more on the new connections of governance-knowledge and in the action space formulated by the actors. The research investigated the added impact of governance and knowledge in the mirror of sustainability. Beside the sociological approach the political scientific aspect was in special focus, presuming that the governance position and the scope of knowledge of actors would significantly influence the embedding of environmental aspects into the decisions. We endeavoured to detect the impacts of different governance modes, of the concrete institutionalisation process and the regulation itself on the efficiency and political legitimacy keeping track of sustainability as the main focus. Further we have investigated the knowledge types used and created during the above process.

Therefore we will not just scrutinize the formal scientific infrastructure in environmental research but (local) governance arrangements which regulate or enable the production of various types of knowledge.

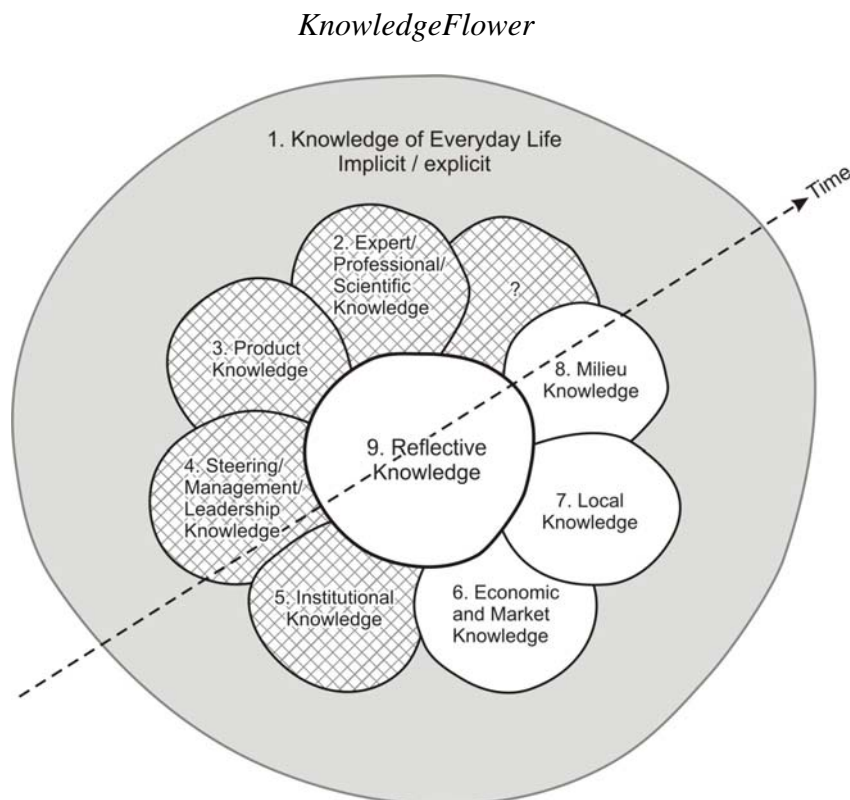
Governance arrangements are made of bundles of rule systems which each have a distinct influence on the combination, application and the trading of knowledge (Heinelt et al. 2006). Our research is therefore guided by the following questions:

- What are the dominant knowledge forms within each case study area and who are the respective knowledge holders (what types of knowledge was applied by the actors of the process)?
- How can governance arrangements help to organize the boundary-crossing of non-scientific everyday knowledge with scientific and/or high-tech and expert knowledge in an orderly manner?

- In which ways do certain governance modes/arrangements (for example arguing, bargaining, hierarchical) encourage and facilitate or obstruct and hinder the development and application of knowledge forms?

According to the approach of the consortium the different knowledge “products” can be attached to different governance modes (market, hierarchical, and network). The research was to prove, how certain environmental policies can encourage the use of different knowledge types (expert knowledge, local knowledge, economic knowledge, managerial knowledge, etc.) (Figure 1). Further, we wished to detect the special governance forms (hierarchical, non-hierarchical, market governance etc.) which can especially contribute to sustainability. The target of the research was the identification of the spaces of environmental policy games and to analyse the types of „KnowledgeScape” required to shift the different environment policies towards sustainability (Heinelt et al. 2006).

Figure 1



Source: UM/IRS 2006 in: Heinelt et al. 2006. p. 42.

2.2 Sustainability

Our understanding of sustainability somewhat differs from the meaning of the term as explicated in the Brundtland Report and the related discussion. Approaches to measure sustainability are usually based on substantive criteria that relate to the substance of the policy programmes. Here one might focus on the ultimate effects and outcomes of the implemented policies. These effects are usually measured using a fixed catalogue of indicators. (*Such as for instance the sustainability scale of values in the course of the preparation of Strategic Environmental Assessment, or in Emission Trade the quality of allowances*). This approach leaves us with some doubts because of two reasons:

1. Sustainability is not an absolute, but a relative concept that cannot be fully analysed outside a certain governance context or dissociated from its political, social, economic and wider socio-spatial context. In particular, sustainability is highly *dependent on local knowledge*.
2. Indicator-based approaches to sustainable development are not able to measure interdependence and fail to provide strategic guidance for policy integration. This is why we refer to the notion of reflective knowledge. Reflective knowledge develops out of the purposive interaction and perceived interdependence of various forms of knowledge, often in particular socio-spatial contexts, and represents the creative interaction of and interdependency between these knowledge forms within a certain context (*Heinelt et al. 2006*).

The research has examined in a retrospective way the environment policy action arenas and besides – where ever it was possible – participating observations were included into the process of research. The documents prepared about the discursions about the action arenas, the media materials in connection with environmental policy actions, and other documents, regulations, and legal materials were the vases of document analysis and discourse analysis. These were complemented by interviews and questionnaires done with the most important actors.

The first case in this paper focuses on knowledge and governance reviewing the entirely scale of governance arrangements while the second case study discusses the local level via local interactions.

3 Strategic Environmental Assessment of the South-Transdanubian ROP in Hungary

3.1 Hungarian Planning System and the Second National Development Plan (SNDP)

We have selected as the subject of our case study the SEA for the operative programme of the South-Transdanubian region in the framework of SNDP (2007–2013). This planning has followed the regulation of European Structural Funds as a part of a massive Europeanization process taking place in the new member states.

The making of the plan was based on a special regulation in many respects incompatible with the national order. The adaptation to the European Union's requirements was carried out in many respects through external, special solutions, since the government was unable to integrate the new values and mechanisms into its own national structures. Hungary received practically ready-made procedures, institutions and policy means required to access the resources in the ESF.

The time pressure was characteristic during the entire process contributing to the separation of European and national planning. The SNDP was made under the control of the government commissioner responsible for development policy with separate office, the National Development Agency (NDA). The preparation of the SNDP was primarily influenced by the European Commission and the main objectives of the national plan were defined mostly externally.

Similarly, the regional planning took place in a centralised scheme. The elaboration of regional operational programmes (ROP) strictly followed the continuously changing requirements by the EU and the central expectations. ROPs were made on the residual principle, (targets were often included which were not important enough for the sectoral ministries) and their content was determined in the NDA. The Government concentrated the planning and implementation in the NDA, and ROPs were prepared in a similar linear/vertical process.

The success of interest reconciliations was seriously limited by the general insufficient density of civil networks, the low level of the citizens' participation, and the general lack of the cooperative political culture (Arató, 1999). Societal actors participated in the preparation of the SNDP mostly in the early phases of planning. The social discussion of the National Development Policy Concept was a two-month procedure, involving almost four hundred organisations. Nevertheless the participants complained about the one-way communication: in the majority of the forums the intentions of the Government were introduced and the debate was restricted to why the recommendations could not be accepted. An argument frequently used to conclude the debate was that the European Commission did not

allow something or that something had to be included on the recommendations of Brussels.

The draft of the SNDP was considerably amended after the elections of 2006 so new discussions became necessary prior to the submission of the final version. For the reconciliations of the final versions of the operational programmes, the time was also far too short, making it impossible to have real discussions, the process was from the bottom not really understandable.

3.2 The National Legislation on SEA

In the course of the preparation of the governmental decree on SEA there was a significant debate basically among four ministries. Compared with the first draft the proposal was in many respects simplified and a number of provisions were eliminated, which originally were to ensure a larger space or more definite consideration for environment protection and for the publicity as well. The modifications imply that in the course of the legislation the administrative organisational interest and knowledge could better succeed than the special professional/ environmental aspects.

3.2.1 The Actors of the Environment Assessment

Planner (elaborator)

The planner decides himself, whether in the process of the preparation of the plan it is necessary to carry out environmental assessment or not, the only exceptions are the obligatory cases listed by the legal regulation. The SEA must be fulfilled by a person with adequate expertise. The planner is the “master of the case” – apart from the final acceptance – it makes all the important decisions.

Green authorities

The authorities responsible for environment protection are present in every phase of the process and their involvement is made compulsory by law, but they only have the right of expressing their opinion.

Public

The concerned public is practically anyone, who is effected by the plan – especially due to its environmental impacts –, among others especially environmental or other civil organisations considered as concerned by the law or the planner.

Decision makers

Public organ, the government or the parliament to which the planner submits the plan, and as a part of the plan the environmental assessment for approval.

3.2.2 The Process of SEA Making

- As the first step the planner decides based on the opinion of the authorities responsible for environment protection about the necessity of environmental assessment.
- The second step is defining the content of environmental assessment. Environmental authorities have the right of opinion, and the planner is obliged to provide them with necessary information. The planner publishes the syllabus and the schedule of the SEA and defines the circle of concerned public based on these documents.
- The third step is the elaboration of SEA and its submission for evaluation. The form of the evaluation is actually not mentioned in the legal regulation separately. Also the procedural order between the planner and the expert elaborating the environmental assessment is not regulated. The planner publishes together with the SEA the target of the plan and also the information where and when the reconciliation documentation can be inspected. It is compulsory to give orientation on the plan and the environment assessment at least in one national or local press organ, and shall the planner have a website the information must be published there too. 30 days are available to the public to express opinions and comments concerning the information published. In the case of divergent opinions reconciliation must be held, and following that the remaining divergences must be included in the documentation.
- As the last step the planner has to submit the draft plan and programme to the decision making organ together with the environment assessment, as well as the summary of opinions and comments received during the environment assessment. The decision maker must consider the both the environment assessment and the opinions and comments received.

3.3 The Operative Programming of South-Transdanubia (STOP)

The number of the selection options was strongly limited by the fact that the SEA became first compulsory in the NDP and therefore there were no former adequate domestic plans available. We have to imply that the selected case is in many respects not ideal from the aspects of our research due to the new requirements of European planning. The ROP and SEA process was fairly hard to understand,

bearing unforeseeable turning points, where the actors, roles, knowledge and processes are far not clear and settled not only due to the loose regulation but also due to the lack of routine and time. We can agree with those who call attention to the importance of the general decision-making and policy frameworks (Nilsson – Dalkman, 2001; Nitz – Brown, 2001). Our case is a typical example of the phenomenon that the dominant model of governance can hardly adapt, interiorize the philosophy of SEA.

We reconstructed the process of ROP and SEA preparation fundamentally with empirical methods. We made interviews with the main actors and analysed all important documents (plans, minutes, websites, etc., altogether about 80 items) concerning the legislation, planning and SEA making process. We have reached almost all actors in the issue of SEA, made more than 40 interviews striving to represent the different types and levels of actors adequately. On the other hand in the case of this case study we could hardly rely on information by the media since there were scarcely any articles concerned with this topic.

The region of South-Transdanubia is one of the seven NUTS 2 regions in Hungary belonging to the most underdeveloped ones. With regard to the fact that the traditional meso level unit of Hungary is the county (19 NUTS 3 units), this larger regional unit originally serving developmental-statistical and planning targets is constituted by counties (Figure 2).

The planning process of the STOP has been launched at the end of the year 2004. Following the decision on the main targets the planning team made decision on the so called strategic development programmes which are to break down and unfold the comprehensive overall targets.

In the frameworks of the regional reconciliation facilitated by regional development agency (STRDA) – in a written, electronic form – 469 comments were submitted concerning the STOP, and the agency answered these comments. From among these comments only few dealt with the aspects of sustainability

The South-Transdanubian Regional Development Council (STRDC) passed at its 2006 November session the final version including the opinions formulated during the civil reconciliations. In December 2006 the Hungarian Government also accepted the STOP and subsequently the European Committee passed it in its resolution of 1 August 2007.

The two years action plans were developed on the bases of the above priority axes in the first half of 2007. The reconciliation of the action plans was carried out involving mainly those groups, which were potentially expected to submit future proposals, tenders.

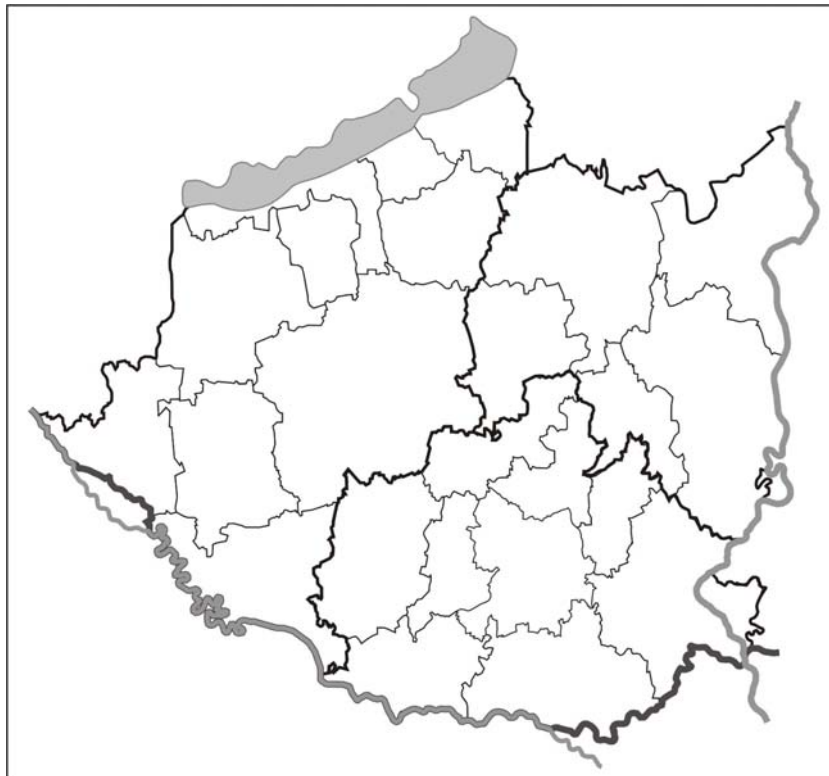
According to the report on the national public internet based reconciliation of the action plans only 14 organisations considered it necessary join in the discussion formulating altogether 45 proposals. One complaint is definitely to be stressed according to which “the documents published at the website of the NDA

and the web-portal of the regional agency often show even significant factual divergences”.

The public dispute was finished in the middle of June, the document was passed by the STRDC on the 29 June, by the Hungarian Government in July. The central reconciliations of the ROP practically could not be attached to concrete events or negotiations, since they meant nothing else in practice than the uninterrupted “guiding of the pencil” of local planners. The local decisions were always preceded and then followed by consultation with central planners.

Figure 2

Micro-regions, counties in South-Transdanubian Region



Source: Edited by the authors

3.4 The Strategic Environmental Assessment (SEA)

The SEA originally targeted the region to become the “model region of high environmental quality”, therefore environmental aspects received special accent. The creators of SEA emphasised that in terms of interpretation of sustainable development South-Transdanubia is one of the best prepared regions in the country.

The NDA selected a consortium through open public procurement to carry out the SEA. This consortium was led by Respect Ltd., which was at that time the only organisation in Hungary having a reference in SEA preparation. The methodological description of the SEA report was available to be viewed by official and social partners, and was discussed at a partnership forum.

During SEA consultation, the NDA provided a multi-channel option for receiving partner’s comments: partly on the website of the NDA and partly through a web interface. The planner, in this case did not seek for a stronger cooperation with the SEA makers, but paid only attention to the proper ready made report.

In case of the STOP, two SEA forums were held in Budapest together with other regional OPs and especially, for this region in Kaposvár. The consultation was made available to the general public on the NDA website and in national newspapers. However, if we take a look beyond the formal procedures we will see that the philosophy of SEA was injured. The SEA makers were not authorized to conduct direct negotiations with the different planner units just indirectly through the Department of Evaluation of the NDA. This indirect manner led to the point that the SEA was first prepared subsequent to finishing the social dispute on the OPs and therefore their dispute also followed after finishing the OPs. This was extremely significant mistake also criticized by the participants in the social disputes.

Concerning the media publicity of SEA preparation the picture is depressing. Practically we could hardly find any press organ which would have dealt with the statements and conclusion of the SEA prepared for the NDP. One single article reporting on the social dispute of the NDP and the OPs mentions also environmental aspects and the SEA. We can not report on a more intensive media interest concerning the preparation of the STOP either, and the SEA phase completely disappeared from the eyes of the wider society. As mentioned, the reason for that is especially that the language, content of the union plans and programmes is a fairly hard communication task towards the lay public, moreover often even for the politicians participating in the different decision-making organs. Furthermore the introverted attitude of the “planning experts” was explicitly apprehensible during the entire planning period. The fairly hectic and incalculable process of the bottom up and external (EU) reconciliation consumed all the energy of the planners, and acquiring the support of the local society was rather unimportant for them.

3.5 The Action Arena

The topic of our study makes it necessary to highlight the weakness and the unsettled character of the regional tier. The reform of the meso-level of governance has been a subject of political and professional debates since the systemic change, i.e. the question whether the traditional county system (19 counties plus the capital city, Budapest) should be replaced by administrative spatial units bigger than the counties. The decision has not yet been made, but the discussion contributed to the parallel and often competing operation of different institutions and functions at three spatial tiers of the meso-level of governance (174 micro-regions, 19 counties and the capital, and 7 macro-regions). South Transdanubia, is a so called NUTS 2 unit created definitely for the absorption of the resources by the European Union. However, the so called development councils created at this level have weak competencies compared to the central government level. Subsequent to the accession Hungary set up new managing authorities in a too centralised manner. For the programming period 2007–2013 the steering competencies of the SNDP and the OPs have been concentrated in one single mega organisation, namely in the NDA and the regions could play a secondary role in planning and implementation of the plan. In spite of the domestic development institutional system created 10 years ago the management of the ESF has been built up separated contributing to parallelism and overlaps (*Figure 3*).

3.5.1 Involved Actors

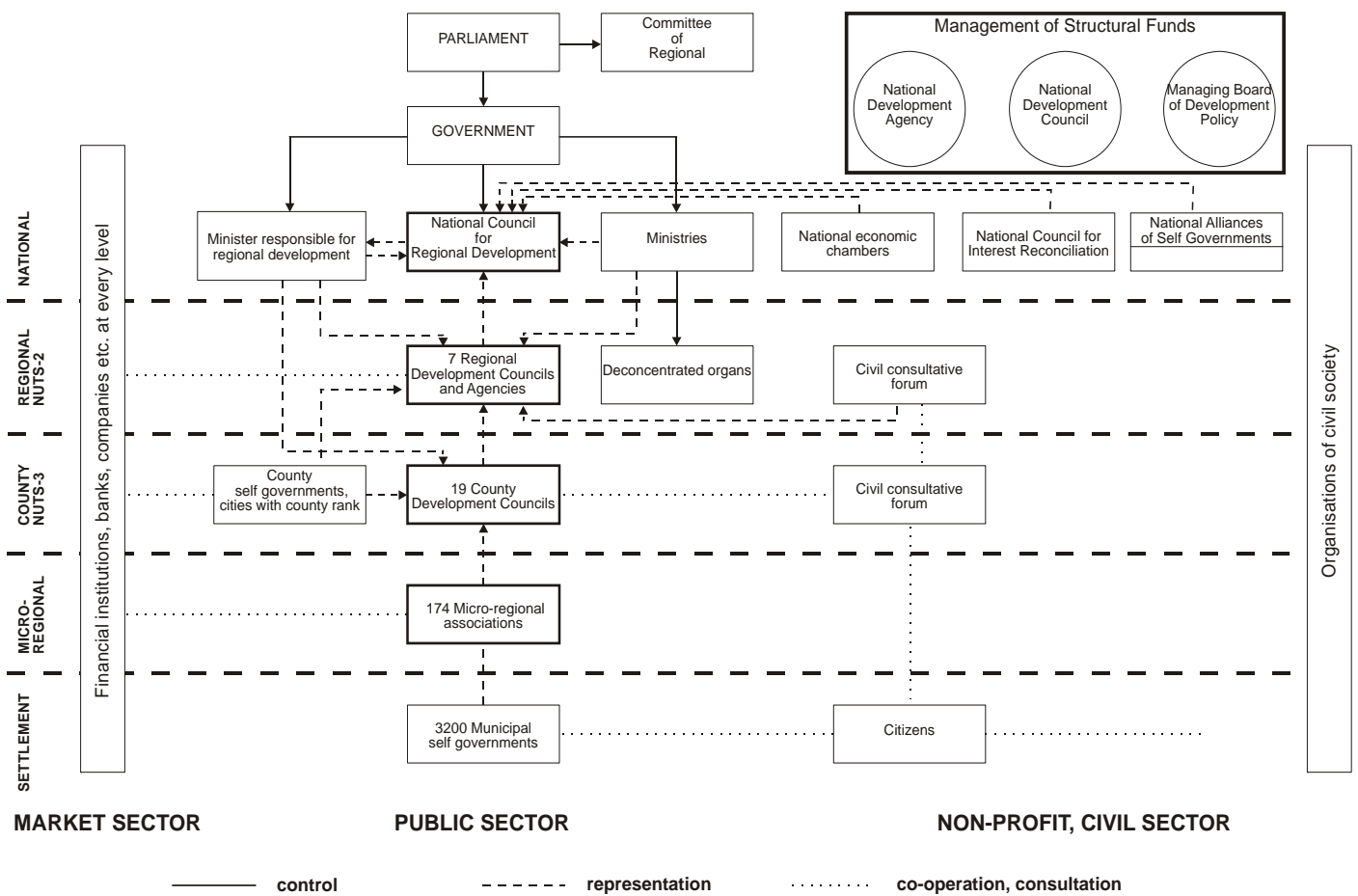
The creation of the SNDP, ROPs and the two-year action plans was fundamentally carried out under the steering of the NDA, with the participation of a high number of actors of course. The NDA was responsible for the interaction with the competent authorities of the EU, the plan itself together with the OPs and action plans were finally accepted by the Government.

Local/regional planners (South Transdanubian Regional Development Council (STRDC), Regional Development Agency (STRDA) have/had several tasks in the process. The STRDA, founded and supervised by the STRDC, planned and submitted the draft of the STOP having no decision-making competencies. The ROP was approved by STRDC containing the representatives of the dominant self-governments and the delegates of certain ministries. Beside the Council, other actors are present as consulting partners (Figure 4).

The so called Regional Working Group (RWG) was set up by Government Decree, with the aim to involve the social-economic, professional partners and the representatives of sectors and science in the planning. The RWG of the region had 47 members, some of the representatives of science and the economic sphere got

Figure 3
Hungarian System of regional policy and the management of ESF

DOMESTIC SYSTEM OF REGIONAL POLICY AND THE MANAGEMENT OF ESF



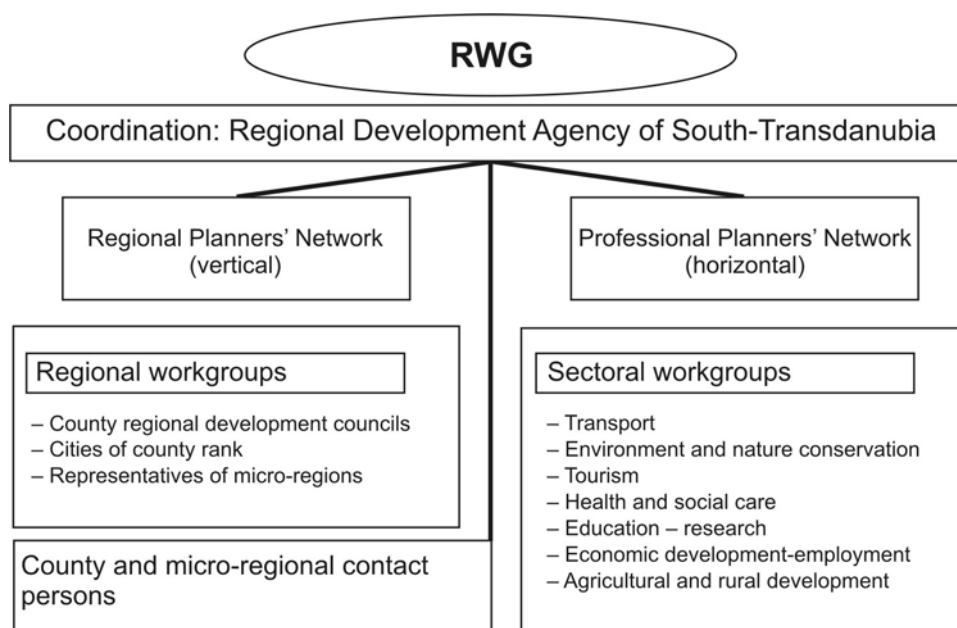
a place in the organisation. There was no civil actor member in the working group. The further members represented the central government and the more significant urban self-governments and the STRDA, STRDC (see *Figure 5*).

Civil actors and the general public have opportunities to express their opinion in a fairly formalised order. The environmental organisations belong to the relatively well organised organisations within this sector, and therefore they were able to express their opinion more successfully.

Experts have a predominant role in the ROP and the SEA as well. The planning was based on previous regional planning documents made by the Hungarian Academy of Sciences and the University of Pécs. Experts were also important actors in the regional planning working groups. The SEA makers are themselves experts of course. Sectoral experts appeared also in the planning working groups having a fairly good experience in regional planning due to mostly the previous PHARE programmes.

Figure 4

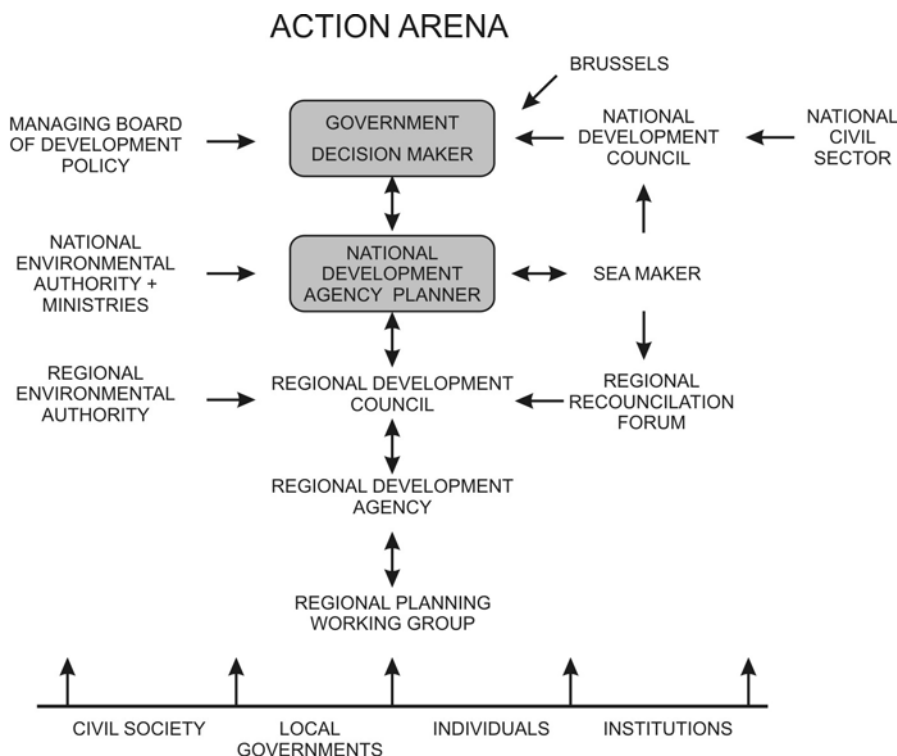
The South-Transdanubian regional planning network



Source: Based on National Development Agency (www.nfu.hu).

Figure 5

The Main Roles/Competences of the Actors



Source: Edited by the authors.

3.5.2 Absent Actors

Party politicians

The leaders of larger self-governments seek to enforce their party affiliation in the course of their membership in the STRDC (generating conflicts), and also the persons representing the ministries are often not public servants but party politicians. Despite of that the parties and their ideology were present only in a hidden way.

Economic actors

The economic chambers currently only bear the right of consultation in STRDC and in practice their activity is strongly regressing. Despite of that certain eco-

conomic actors exert mostly in an informal way significant influence on the preparation of the ROP.

Independent experts

The independent experts were absent who would have been able to reason with professional arguments with the creators of SEA or to assist the participation of other partners with their expert opinion. We are not convinced that the SEA creators were able to formulate a really independent opinion towards the planners.

Environment protection authorities

The role of the Ministry of Environment Protection (MEP), and its regional organs responsible environmental issues were not very strong or accented. The interviews with the green authorities implied that the reason of their fairly low influence on the process was actually their own interpretation of their role. Namely it is the duty of the green authorities to express their opinion on the SEA. They interpreted this as a kind of controlling or quality assurance. As the head of department of the green authority formulated: “We have no voice in the strategies, if we are invited to the reconciliation forums, we may at best sit down but we can not intervene in the discussion.”

3.5.3 Observed Modes of Interactions

The Vertical Dimension

The planning process was for the first sight carried out in a very formalised system based on a hierarchical, multilevel governance model supplemented by the element of networking (partnership). The National Development Agency coordinated the planning organising official forums. One of the planners characterised the sessions “we were too many to go into details”. The written documents and correspondence were in general not used to confront different approaches but rather to provide for orientation, information and record the results of informal negotiations. Especially the relationship of the SEA creators and the NDA was indirect and formal. As one of the SEA creators formulated: “we have sent everything to the NDA and we have received everything from them”. However even in the hierarchical segment the informal moments were also present: The informal, lobbying types of interactions were less effective between the central and regional actors, but much more in the relationships between the sectors/ministries and between bureaucrats and politicians.

The Horizontal Dimension

A part of the civil organisations could participate in the central tier reconciliations through direct invitation, like green organisations with a more significant network and further the National Council of Environment Protection (NCEP) as advisory organ of the Government, in which professionals, civil organisations, the economic sphere and the scientific life is represented. The leader of one of the civil organisations remarked that they have in vain requested to the minister to involve them but they have never received an answer. This observation actually implies that *the planner had the chance of filtering*.

The regional level reconciliation is also regulated. The *civil sector is compulsory consulting partner*, in the form of the so called Civil Reconciliation Forum (CRF). Civil organisations could freely register into this forum. Civil actors were at the beginning fairly distrustful towards the regional planner. Since the autumn of 2006, the revitalisation of the CRF has been on the agenda. The first more serious task of the forum was the consultation on the ROP and SEA interpreted its participation as learning process.

The company assigned with the elaboration of the SEA set very strict deadlines for the social dispute. Of course the invitation of the CRF was obvious. The Green Circle Association was the opinion leader among the environmental organisations. CRF did not participate in the discussion on the SEA organised in the city of Kaposvár. Their opinion was transferred to the SEA creators in written form and through the internet. One of the civil organisations attending the Kaposvár forum remarked that their representative addressed a question during the meeting, but the SEA makers instead of dealing with the question indicated that they will “forward the proposal to those responsible”. Partly for these kind of reasons the opinion evolved on behalf of the civil actors that the SEA is only a *task to be tickled*, without any real significance.

During the joint work it became clear for those elaborating the SEA that several of the recommendations of the civil partners are worthy to consider. Still the cooperation was not without any conflicts. The genuine character of the discussion was defected by the fact that the civil actors were overwhelmed with a large amount of unprocessed information deriving directly from the Government, therefore the civil actors were not really able to treat the information adequately due to the lack of capacity and time.

The discussions were strictly documented in the so called reconciliation diaries, and besides that it was possible to formulate and submit opinions through a specific scheme on the internet and the feedback by the planner was transferred here too. Namely the planner had to report in the course of the presentation of the final plan on the results of the reconciliations.

With respect to the civil dispute some improvements were to be detected due to the learning process of the civil actors, but the main feature of interactions was

the indirect character and the limitation of the direct discussions and often the mere formality of the feedback. One of the SEA creators reported: “The material was published on the website and anyone who felt to want to say something, had the opportunity to do so” The representative of one of the civil organs said the following: “The website of the STRDA is chaotic, I can not find anything and sometimes I think that it was designed this way on purpose...”. These problems appeared of course in the officially presented documents only partially.

The argumentation of the “dispute” implies very well that it was carried out on a quite theoretical level. The preliminary reason of which is that the specification of ROP at that time did not allow participants to state the case more concretely. SEA was very hypothetic and could not be based on concrete calculations, the venues of the planned developments were not known and therefore the SEAs were rather appropriate for shaping of attitudes than for establishing concrete preventive steps.

3.6 Governance Arrangements – Predominant Hierarchy

Hierarchy was strongly enforced towards the regional decision-makers, although mainly not in the form of formalised, official decisions but much more through direct planners-officials personal “consultations”.

The hierarchical element was enforced also in the process of SEA preparation. The SEA creators were practically excluded from the territorial and sectoral reconciliations concerning the ROPs. The integration of the SEA into the process is practically unregulated. As the department leader of the RDA responsible for the SEA formulated: “the SEA maker and planner arranged the schedule anyhow.”

Mainly Hidden Networking

The “hidden” sphere of the politicians maintained mainly informal relationships to the NDA, but there were also some formalised elements in this system:

- The minister supervising the NDA, as a politician was the most important contact point between the planners and the politicians.
- Formalized party consultations were held also involving the opposition parties. However the forum was not able to conduct real dialogue.

We felt the signs of networking governance in the circle of civil organisations participating in the social reconciliation of the SEA. The necessity of cooperation was by virtue of the character and volume of the task obvious, since the civil or-

ganisations were only this way able to comment the very diverse topics in a professionally competent way and to handle the large quantities of information at all.

Almost Absent Market Mode of Governance

Economic actors were almost completely absent in the planning process of the ROP but to some extent traceable. One of the interviewees reported that his professionally better tender was beaten in the SEA tendering of the action plan because of his the higher price and the price weighted with 50% among the selection criteria. One of the SEA makers reported that “NDA pays so they can order as well”. A part of the experts involved in local planning also received their assignments through application or public procurement. The major part of the knowledge was therefore “purchased”.

3.6.1 Rules in Use

The regulation of the planning process was rigidly formalised and chaotic at the same time:

- Resulting from the hierarchical governance the role of the position, boundary and authority rules has succeeded regulating the issue of who and what.
- However regulations were very soft concerning the question of how (aggregation rules), for instance how far the planner is bound by the SEA or up to what extent the planner is obliged to consider proposals raised by the participants of social reconciliations.
- Concerning the civil actors it is hard to clarify whom they represent because there are no legal, procedural or legitimacy rules existing.
- The scope rules are also liquid, the borders of the regions are rather artificial and the actors can hardly decide in the course of regional planning whether the given objective will really serve the entire region or will have a smaller scale impact. The SEAs of the seven ROPs were created by the same expert team, not only using the same scheme, pattern but also often making the content elements uniform as well.
- The planner decides about the way of informational flows. The processing of the information arriving with big delays and lacking expert assistance often did not happen at all, generating only formal opinions or even “silent agreement”.
- We could often find in the planning and also concerning SEA report too general addressing of stakeholders (like through the internet or newspaper), which actually was unable to reach to those really concerned.

3.7 The KnowledgeScape

3.7.1 *The Dominant Steering, Institutional Knowledge and Holders*

In the planning process of the ROP, interestingly we identified the dominance of the steering, institutional knowledge. We have found that planners of the NDA and the regional development agency could acquire the dominant role *because they were familiar with the procedural, organisational and institutional requirement system, the specific terminology of the European planning with the logic of reconciliation mechanisms and the competencies of the different tiers*. Often stated phrases were “Brussels expects that...” The SEA creator said to the question, whether it was a disadvantage that they had no experience in the field of SEA: “It was not a disadvantage, since this type of knowledge was not necessary. Only knowledge on the legal background and the pervious SEA’s was necessary and we also reviewed some international projects”. *The “European knowledge” namely “how the Union functions” is in Hungary currently the privilege of a narrow expert elite.*

A peculiar paradox is that the staff of the NDA had a relatively poor institutional and steering knowledge on its own institution. The instable organisational context concerning its new, fairly complicated internal regulation reduced the performance of the staff working there. The employees were new and young technocrats with relatively poor knowledge on public administration and the organisation itself.

The makers of the ROP SEA were conscious about their own “rights” in the course of the reconciliations, but these “rights” could not succeed against the planners. The SEA makers were in a “vacuum”, and could not integrate in the planning process. According to the SEA makers the personality is an important element in the process, e.g. to what extent the expert as a person is able to insist upon his/her arguments or he/she is able to formulate proposals in a context sympathetic, desirable also for the planner.

Secondary Role of the Expert, Scientific Knowledge (Bundle1) and Holders

The SEA as a completely new policy tool is the privilege of a few experts in Hungary who are members in international professional organisations and have scientific and institutional background. Although Hungary now has many good environmental experts, the SEA as a method and a value system is still not widespread, this is knowledge *of a very narrow professional circle*. The Central and East European Regional Environmental Centre (REC) was the organisation pro-

viding the institutional background for the first SEA pilot project in Hungary carried out in 2003.

But the SEA of ROP action plan was not any more created by this team, but based on its lower price a consortium having actually no experience in SEA creation. Since the NDA had no SEA knowledge at all, and considered this work as strongly formal, was rather interested in the simply creation of the SEA report.

3.7.2 Social/Spatial Distribution of Knowledge

ROP and the SEA require strongly intellectual capacities. It is not accidentally that none of the planning documents could approach the general public (referring just to the fairly artificial language of European planning). SEA preparation was limited to state offices, academic sphere or the professional circles at local governments. Even the English language knowledge was a filtering factor since a part of the documents was not or with delays translated into Hungarian. Certain social layers or groups were prominently absent in the ROP (e.g. gypsies, women, homeless or elderly), and the interest representation were unable to enforce their own aspects in the disputes.

A further important element is the strongly centralised character of planning. The NDA's staff characteristically missed to "come down" to the region, in opposite rather the local actors had to "go up" to the offices, and this attitude was characteristic for the SEA makers too, the local actors and their knowledge therefore was not so influential.

3.7.3 Excluded/Silent Everyday/Local Knowledge and Holders

The lack of local knowledge can be explained by multi-fold system of reasons:

- The abstractness of the ROP and the SEA did not allow a consideration of local aspects. Mayors and the civil organisations often expressed their opinions according to local features and aspects but these opinions could unfortunately succeed with a very low efficiency.
- For SEA experts living in the capital city the region was an "unknown field".

3.7.4 Reflective Knowledge

In the first national development plan (2004–2006) the preparation of SEA was not yet compulsory. Despite of that a SEA was prepared for the only ROP, and this rather pilot type of project provided the opportunity for an expert team to evolve which learned the philosophy of SEA. They had direct contact with the planners and consequently a tight cooperation developed and the planner could utilise from the SEA process as much as he wanted.

In the framework of the second national development plan, in our case study the SEA was created under completely different circumstances. Namely the integration of the SEA into the process was compulsory as well as the cooperation of the planner, the SEA makers and the civil partners. Despite of that the experiences of the former SEA creation and the learning process were not adequately utilised, reversely SEA makers were kept as far as possible from the operative planning.

We could detect some kind of learning process in the civil sector. The knowledge applied by them is rather an empirical, than expert knowledge. As one of the civil experts of a green organisation formulated: “we did not receive too much new information from these documents which were unable to answer the problems of the region.”

3.7.5 Synergies/Contradictions between Knowledge Forms

The low transparency of the decision-making process, the novelty of the institutional system and inflexible treatment of the requirements of the European Union as “ultima ratio” upgraded the institutional and steering knowledge and hindered the enforcement of expert knowledge and the local knowledge forms. Referring to the typology by Davoudi (2006) the Hungarian case study is much closer to the instrumental model than to the reflective model of scientific knowledge transfer.

Beside the above we have detected some synergy and some elements of the reflective model. The preparation of the ROP and SEA significantly contributed to the evolvement of a more intensive cooperation between the civil organisations of the region thanks to which the lacking local knowledge of the SEA makers could be supplemented – with some regional elements.

The relative professional success was promoted by the fact that the RDA has in advance possessed an environment protection strategy and such an expert colleague who could be the real partner of the SEA makers. The “green” fellow worker maintained contact with the SEA team, and could contribute to the quality of the report. In this respect the synergy was assured by the fact that there was an actor *within* the planning organisation, whose main task was the enforcement of environmental aspects and on the other hand participated himself as a planner in the process.

3.7.6 Knowledge Deficits

We can state in general that both, the ROP planning and the SEA were unable to treat social aspects. The laic politicians and the civil society not concerned with environment protection, the ordinary citizens, as everyday knowledge holders were practically completely excluded from the discourse. The strong filtering of the local and regional aspects and knowledge within the centralised decision-making mechanism actually had a negative effect even on the quality of the SEA hardly able to formulate locally specific recommendations. To realisation of negative consequences will be possible much later perhaps by an “ex post SEA” or the ex-ante evaluation.

3.8 Interaction Between Knowledge and Governance Arrangements

3.8.1 Relation of Knowledge and Governance Arrangements and the Learning Process

The hierarchical governance mode was the main obstacle in the process. The dominant authoritarian position and aggregation rules, institutional knowledge based on attributes and low level of public communication have been supported by the governance arrangements which were able to filter largely the local, milieu and everyday knowledge forms.

The consortium creating the SEA was practically in possession of the scientific knowledge, what it (could have) used for playing the role of knowledge translator too. Most of the experts were also teaching at universities and the leading expert also published a book on SEA (*Szilvácsku*, 2003). However, the planner and its governmental context did not allow this translator function. The extremely loose banter of the staff did basically not interest the planner in the integration of SEA knowledge which remained stuck outside the government. The high fluctuation, contra-selection of the staff has hardly encouraged the inclusive attitude of planning bureaucracy against the external environment and import knowledge.

3.9 The conclusions: ‘Governance for Sustainability’

3.9.1 Assessing Sustainable Development

We tend to share the opinion formulated by Fernandez (2004) on the Spanish politics that similarly to Spain, in Hungary the sustainability is exogenous, unable to interpenetrate the everyday practices.

The entire governance is interpenetrated by some elements limiting the *comprehensive* enforcement of sustainability:

- Poor dialogue between public power and the civil society.
- The environment protection is institutionalised within the government in a “sectoral”, isolated way.

It is not accidentally that the social consideration (social and special cohesion) could not succeed in planning, or similarly that according to the general opinion in the second national development plan competitiveness conquered sustainability.

As concerns the *aggregation* dimension of the governance policy the model of governance is also not optimal. The sectoral ministries concerned defiantly endeavoured to narrow the scope of the application of SEA. The environmental aspects were therefore external and posterior within the process of governmental policy making.

3.9.2 Legitimacy

The polarized political situation, the unstable position of civil servants and the weak social partnership, further the weak cohesion and the lack of confidence forming the context, as well as the loosely established character of the regional tier all imply the weak legitimacy of the ROP and the SEA.

The actors may not be excluded from the reconciliations, but this is very far from the real participation as the requirement of *input legitimacy*. The transparency of the decision making process was not adequate either, and therefore *throughput-legitimacy is originally absent*. The union planning and especially its regional tier suffer under serious malfunctions in terms of both the legitimacy and social embedding of institutions, and the transparency of the processes.

It is still a question, what level of *output legitimacy* the quality of the ROP and its acceptance by the actors can guarantee? The public consensus in relation to the ROP means practically a very narrow local political and civil acceptance.

3.9.3 Synergy of Governance and Knowledge for Sustainability

The given national case can not be understood of course without the concrete physical, social, cultural environment (attributes of community) and the general model of governance as we could learn from the IAD framework (*Ostrom, 2005*). The Hungarian case study supported that the general frameworks of governance are the most crucial factors from the aspect of the concrete action arena they may even overwrite the special regulation and institutional environment.

The ROP and the SEA are novelties for the Hungarian public administration requiring:

- decentralised governance,
- partnership of non public actors,
- networks for arguing and bargaining,
- measurement the quality and efficiency of decisions, and
- respecting the normative value of sustainability.

Since in Hungarian planning the SEA was placed “externally”, even the advocacy coalition could give a chance to a more efficient enforcement of sustainability. The top down, closed planning model did actually not allow this, the interaction mechanism was missing. The Hungarian regional planning and within that the SEA has not yet produced a „mature policy subsystem” (*Sabatier, 1999, pp. 129–130*).

We tend to believe that in Hungary the SEA can achieve adequate level of efficiency only if it is an integrated, internal part of the planning institution and procedure. Our conclusion is far from the concept of the G-FORS project. While the open character of the action arena, the penetrability of organisational borders, the dominance of network elements and the expansion of learning opportunities could serve the sustainability, in our case the rigid/strict top down regulation, the knowledge integrated in the organisation seem to be the practicable paths. The opinion of Nitz and Brown does not seem to be applicable in our case, according to which: „Environmental Assessment practitioners have the potential to contribute significantly to ensuring that environmental dimensions are considered in policy making and that policy making outcomes shift us in more sustainable directions.” (*Nitz – Brown, 2001, p. 339*) since the chance of “external” actors representing sustainability for the partnership is practically zero.

4 EU-ETS in Pannonpower Power Plant – Mobilising Knowledge for Efficient and Sustainable Solutions in the Shadow of Hierarchy and the Messiness of Networks

To assess the emergence of sustainable development and the result of policy processes is not so easy. The Kyoto Protocol and one of its European implementation mechanisms the EU-Emission Trade Scheme (EU-ETS) deals with reduce the carbon-dioxide emission in the member states. Reacting to the challenge of climate change (and the regulation provided by the ETS) affected local actors have to attend in the carbon-dioxide quota exchange system. The question is how they can be involved, using what forms of interests and KnowledgeScape (Matthiesen, 2005). What kind of strategies and actions can lead the sustainability? What the situation is in the field of Emission Trade Scheme (ETS)?

In the framework of the G-FORS project Pannonpower Power Plant Company as an “emitter” was selected. The firm is situated in Pécs (the seat of the South-Transdanubain Region). Concerning the EU-ETS guideline and its instructions to the Hungarian legislation the power plant – as a company obliged to involve in ETS – participated in the procedure of the second Hungarian National Allocation Plan (NAP) and National Allocation List (NAL) standing for their interests. These are to meet the demand of the local community (clean air and climate friendly operation) and the claim of economic efficiency as well. The response of the chosen company to the CO₂ reduction (clean air and profit maximisation) was the change from black coal to gas and biomass as a ‘green’ energy. The research – touching upon the challenges rose by climate change – also sought after the reactions of the local administrative level to the new regulative, legislative background and was to identify the role of the local governance in these processes.

As regards the research methodology the first step was to select and analyse the concerning regulations identifying the key actors and the main procedures. Parallel with it we started to collect data, articles from local and national daily presses, different periodicals and reviews and other written materials looking for the local situation and mapping the whole arena and its processes. Interviews also have been done with the key actors on national and on local level as well. The task was hard with the interviews since the research touched sensitive economic interests on both levels. Actors usually abstain from giving interviews therefore sometimes we needed personal acquaintance to the appropriate person. The difficulty was to go through the desks of secretariat.

4.1. Case History

Pannonpower is the second biggest power plant in the South-Transdanubian Region (following the Paks Nuclear Power Plant, which is the largest in Hungary). The company has continuously improved and modernised its technology in order to achieve a better dust emission rate but also due to the pressure by the local society and by the city council. The main argument was the unhealthy air. In 2004 Pannonpower introduced gas and biomass (with 50 MW built-in capacity) as its new combustible. This change resulted in lower sulphur and nitrogen-oxides pollution and in reduced gross carbon-dioxide emission. These mitigations are measurable in the air quality of Pécs and also appear in the competitiveness of the Pannonpower.² Further, due to this change-over from fossil to renewable fuel the company successfully transacted the so called Joint Implementation procedure in 2004.

Thus the first key theme/moment in the story line was the *decision on the project*, in the spirit of which the company changed from coal to gas, then to biomass. The targets of the change-over to biomass were the following³:

- profit maximization A: The new biomass block was built based on and utilizing the Joint Implementation (JI) Mechanism of the Kyoto Protocol
- performing the obligation set by the EU-ETS;
- where the company reduced the CO₂ emission;
- where the company can gain profit with the Best Available Technology;
- where the company can gain profit with selling the remained quotas;
- profit maximization B: The electricity won from renewable sources (“green electricity”) is marketable on a higher price (guaranteed by the government) than conventional (fossil) energy.

We could find other spin-off goals which could help the fuel change. As we could realise during the research, these were very good promotional/marketing tools which shows the public that the investment is an environmental friendly sustainable development. These spin-off reasons/goals:

- environmental interest: clean air in the city; rehabilitated former dumping (of flying ashes of coal) areas

² Pannonpower is recently owned by ‘Dalkia Group’. The case company, Pannonpower itself is a holding with several Ltds (companies) – one dealing with the district-heating, another with electricity providing and another operating the blocks of the power plant. The managers are the same persons holding various positions in the different companies (e.g. the same person is deputy manager in one member-company and director general in the other one.) The business strategy is built up in a common way which is a direct outcome of the teamwork based on the common managerial staff.

³ Sources: Interviews with the leaders of the Pannonpower; new articles; www.pannonpower.hu.

- stimulations of the new local, regional and national energy policy (e.g. higher rate of renewable energy).

Concerning the new strategy of the Pannonpower until 2010, the company will build two other biomass blocks with 35 MW and 50 MW built-in capacities.⁴

The local government of the city of Pécs also plays an important role, but in another way. Since the built and the planned biomass blocks are located within the territory of the city, the local government has to permit the construction (concerning the legislation and the local development plan).

On the other hand, since the local government fall in financial trouble in 2000, the body of representatives decided to sell the 49% stakes of the local government in the local district heating company (PÉTÁV Ltd.) to Pannonpower, and therefore the Pannonpower became a stakeholder in PÉTÁV Ltd. Further the deal/contract also included that PÉTÁV (where the owner of 51% of the stakes is still the city of Pécs) is obliged to purchase 100% of its heating energy from Pannonpower until 2014. Therefore in this share holding situation local government is affected by the strategies, the actions and the decisions of Pannonpower so the city and Pannonpower must cooperate as shared interest holders.

Pécs has also a very important role in the field of emission trading and sustainable development. In 2004 the development concept/strategy entitled “Pécs ECO-CITY Mecsek Dráva ECOLOGICAL REGION” was prepared in which the key actor is the city. The main aim was to achieve sustainable and sufficient regional development, and to be supplied by the surrounding rural areas especially with eco raw materials for energy production. The idea is accompanied by the development of the rural areas, (based on public-private partnership or private investments with public support). A concrete example in the concept was the fuel change of the Pannonpower Power Plant, based on future biomass cultivation and production in backward agricultural areas (Kiss – Girán, 2004). (At the moment the biomass is coming from the nearby forests.)

Concerning the common concept we could distinguish three main steps (sub-arenas) within the Hungarian case history. The first is the decision on the project where the Pannonpower (and its owner holding) made decision on what and how to answer the challenge by the EU-ETS (climate change). We analysed both decisions. The first decision resulting the first biomass block in 2004, created the possibility of Joint Implementation, while the second decision in 2006–2007 on the construction of two further blocks by 2010 reply the challenge of EU-ETS II. The second sub arena is the relationship of Pannonpower to the local government, where different interests meet at the same time raising several questions, like: How can Pannonpower work in the sub-arena where the other key actor is the local government? How will these decisions and the relationship with (the claims

⁴ <http://www.pannonpower.hu>

of the) local government react to the aspect of profitability? The third element is the relationship with the local community (NGOs, media, residents). How will the reactions by the local community affect further investments?

4.1.1 The Relations of Market, Hierarchy and Networking

Despite of the peculiarities of the EU-ETS we can state that the most important element/structure/governance mode of the action arena is the market. The idea of the *market* mode of governing says that the attempts to coordinate societal interactions by binding decisions intentionally, societies (like private company and a local government) are also governed by the “hidden hand” of market (Heinelt et al, 2006). In order to match the requirements set by the ETS – next turning to green investments – Pannonpower must use BAT (Best Available Technology) to maximise its profit. But the other segment of the action arena is that the power plant also has to sell the electricity. Besides the higher price of the “green electricity” the Hungarian electricity market was regulated until the end 2007 (the price of the electricity was maximized) by the state.

The third market element in the action arena is the market of the district-heating. The price of district heating always depends on the negotiation of common owners; Pannonpower and the local government. (Here, the local government realises “virtual profit” during the next election. Cutting down the price and improving the quality of district-heating by the efforts of the local government may result in the contentment of the residents which again may result a better position in the course of the next local elections.)

Therefore it is clear that market modes of governance are important elements but several other modes are involved, pluralized by the network of the governance modes in the arena.

In terms of market model of the ETS a number of external factors influenced the decisions not only by the company itself. As mentioned before Pannonpower is part of a holding (a group of companies, called DALKIA group). Therefore the management is well-informed on distribution matters, and knows the quota distributed to different companies located in various countries but belonging to the same mother company. The amount of quota distributed to different sectors varies by countries, so that sectors and companies lobby at their own government for more advantageous distribution of quotas by referring to the practices in foreign countries. The holding’s governance arrangement in connection with ETS is well illustrated by the words of the former general director of Pannonpower: *‘they are grouped into a holding, therefore they are well-informed on distribution matters, they know how much quota is distributed to the companies located in different countries but belonging to the same Holding from their native country. The*

amount of quota distributed to different sectors varies by countries. Therefore sectors and companies may lobby at their own government in connection of the distribution of quotas by referring to the practice of the foreign country.'

Besides the cooperation with group members, the decision-making of Pannonpower is hierarchical and the leaders of DALKIA group (the mother company) can intervene. However the governance mode of hierarchy can be identified much easier by the investigation of the governing structure within Pannonpower. The steering mode of the company is very strict based on command and control interaction. According to the director of the company this topic may affect serious business interests and confidential business information therefore he maintained reservations in connection with the research. This hierarchical, controlled method of steering helps maintaining the rigid business procedure and it is also acquiring and preserving competitive advantages not only in the domestic but also in the international markets of electricity and emission trading.

The hierarchical mode of decision-making is based on command where the decision is politicized based on the profit maximisation policy of the private company (and its group).

The key factor for the company is to be successful in the market, to reply to the challenges of EU-ETS. The steering or governing mode within the company is based on a strict, hierarchical mode where every actor inside the company has is fixed position, and tasks, available information, resources are defined and limited by the position: *'The experts are always responsible for the information of their own field (trading, technical etc.) and they are involved in the preparatory work of decisions. But it is always the management who makes the final decision.'*⁵

The previous example well illustrates that hierarchical and market based governance modes may appear parallel and coexist. The well designed mixture of them can lead to successful operation both in the economic sense⁶ and from the aspect of the strategy of emission trading participation.

As regards the relationship between Pannonpower and the local government, which was previously based on networking and partly market and hierarchy governance modes we found that this type of networking relationship has changed during the research period (2006–2007). The reason for this transformation is that during the past year not only the person of the mayor changed (the previous major according to media archives and other documents maintained good personal contacts with the former director general) but also of the power station's director general. The old personal relations of the city and the power station (based the former good financial negotiations) have changed and until the formation of new

⁵ Interview with Pannonpower

⁶ Pannonpower was among the top 500 (No. 492) firms in Hungary in 2006 in terms of the gross income. Concerning profit its member firm (Pannongreen Ltd. which is technically different, but is a member of the Power Plant) is on the 294th position. (HVG, 2008/1, 2008/2)

relations the local government chooses the strictly formal, procedural way of communication with the power station (i.e. regarding the change of circumstances nearby forest degradation; Pannonpower's too long monopoly position in the sector of district heating and its impact on the price).

The relationship was analysed during the reconciliation period where the Pannonpower wished to obtain permission for the next two biomass blocks in order to get benefit in the ETS market. As the other side of the coin the local government wanted to benefit but in the "market of residents": so it sought to reduce the price of the district heating, arguing that green energy was cheaper. A further problem during the bargaining was that Pannonpower was in monopoly situation selling heating to the city but the city wanted to rearrange this situation.

Regarding – the "attributes of the physical world" (*Ostrom – Gardner – Walker, 1994*) – the market segment of district-heating, the liveability of the city with sustainable development (ECO-CITY, ECO-REGION concept), and the reaction to the challenges of EU-ETS resulted in another governance form. While in the first period – in the sub-arena – the networking and good cooperation were the characteristic, nowadays rather the competitive one (sometimes command and control behaviour, mainly on behalf of the city council) is dominant. The local government realising that the "PÉTÁV" contract (running until 2014) is not definitely advantageous for the city (although it functioned as a kind of life-belt as serious financial problems appeared), the representative tried to bargain for a better position by using the "weapon" of permission, concretely by delaying the issuing of the permission. One of the tools for it was changing the communication channel: the former, personal/informal communication between the two leaders (director and mayor) was replaced by official/formal interactions and governance (i.e. instead of personal meetings the city tried to communicate with the Pannonpower via the authorities delaying the planning process of the new biomass blocks). The former friendly relationship with well flowing negotiations changed to heavy "games", consents based on negotiated agreements changed to individual contentment based adjustments.

4.2 The Influence of Key Themes and the Respective Forms of Knowledge

Every actor is a knowledge holder in a certain way. In order to analyse the knowledge forms of holders selected we collected the relevant documents (minutes, interviews, consultation documents etc.) and conducted content analysis to reveal the most significant knowledge forms.

As Pannonpower – and its sub-arena regarding the EU-ETS – is concerned *bundle 1*⁷ could be identified as a knowledge form, which is obvious since in the lack of expert or professional knowledge the company would be unable to obtain good market positions. The reconciliatory documents and their ‘terminus technicus’ support the above statements. As the interviewee said: ‘*Economists, engineers, environmental experts and a commissioned external expert participate in the decisions on quota-trading. Experts bear responsibility for their relevant field of expertise knowledge (trading, technical information, etc.) and they are engaged in the preparatory phase of decision*’. Therefore, knowledge holders within the collective actor are different and they complement each other. Besides professional knowledge *economic/market knowledge* are also present. As mentioned earlier⁸, the first investment was targeted at acquiring the financial benefits deriving from the Joint Implementation Mechanism both for Pannonpower and its mother company, while the second investment with its Best Available Technology (BAT) was aimed at profit maximization within the frame of EU-ETS.

Beside economic knowledge the remaining part of *knowledge bundle 2 (steering/institutional knowledge)* can be detected in the interviews. Actors within the Power Plant (external or internal experts, managers) know the preparatory procedures of decision making and in case of problems are aware of the appropriate solutions (they know the organisation and the institutional settings of the company).

In the *sub-arena* as *Pannonpower* has decided what to do with the allowances and permits deriving from the *EU-ETS*, synergies/contradictions between knowledge forms and *reflective knowledge* had significant important role. As the interviewee declared, at the beginning of the process the management of Pannonpower had to learn not only the method and the procedures of the Kyoto Protocol (mechanisms) and ETS, but also the ‘what to do’ strategy in this special situation. The members within the DALKIA group exchanged knowledge on the ways of interacting with the governmental level, on the available and useful arguments, etc. This learning process includes besides information and *professional knowledge* in the field of ETS, learning institutional settings and the varying institutional systems (in different countries within the energetic group/holding) and as well as the ability of adapting to the local, cultural specialities/context. The learning process took place within the frameworks of the Holding, and the holding members operating in different countries frequently consult each other. On one hand they are learning what kind of arguments they can efficiently use against

⁷ From the G-FORS aspect we distinguished 3 types of knowledge bundles regarding the dynamics of knowledge forms (knowledge bundle 1: scientific/expert/professional/product; bundle2: steering/institutional/economic; bundle3 everyday/milieu/local (Amendment of Conceptual Frame, 2006).

⁸ Based on the interviews.

their government and also the way how the saleable quotas can successfully be entered into the market. On the other hand during the preparation of NAP, companies can lobby at their own government around the distribution of their quotas referring to the other country's practice.

The research discovered some communication problems between the case of the city council and the Power Plant. Possessing *economic/market knowledge* Pannonpower has to get the permission for the new biomass plans in order to build the biomass blocks – replacing gas fuel and reducing the emission of carbon-dioxide which will result in releasing and saleable carbon-dioxide quota, which may end up in profit maximization as a final target. Thus time factor was crucial point. Reacting this *economic knowledge* based market oriented thinking Pannonpower would have liked to shorten the known institutional process, and get the permissions from every actors as soon as possible. From the other side the interest was similar with other point of view: *'there were times when formalized negotiation meetings were held place between the Power Station of Pécs and the local municipality on a regular, bi-monthly basis. The city considers the power station as a strategic partner...The power station is a partner of the city, therefore (the representative of) Pannonpower thinks that the normal way (acceptable for both parties) of exchanging critical remarks would be face to face communication and meetings between the city and the power station's management instead of using the Authority as a mediator.'*⁹

Pannonpower's interest was to receive the support of the local government for its new investments, while the city's interest was to reduce the price of heating. In the background of these divergent interests is an economic/market oriented cognition: the good and fruitful interaction with the business partner (as they are common owner of the PÉTÁV Ltd), (and an added reason is, the economic efficiency of the enterprise resulting in a higher income from the 'local trade and industry tax'¹⁰ to the local government). During the reconciliation process the problem was that Pannonpower was not ready to reduce its prices, so that the local government was eager to find the appropriate tool to force Pannonpower to do so. One tool applied was temporization. The city tried to elongate the negotiation process by using the most formal and official way, requiring all relevant authorities to submit expert's reports (maximizing the potential of its institutional knowledge).

⁹ Minutes No.3–1/2007/4 item No.15. on the agenda – available for the public on http://logoweb.pecs.hu/file/index/921?entityType=REG_30179.

¹⁰ According to the Hungarian legislation every firm has to pay tax after their yearly income to the local government where their activities are carried out. The rate is maximised by the law but the local government has the right to set/to change/to delay the exact rate in every year.

A further tool applied was influencing local inhabitants by emphasising that the fuel for the biomass block will come from the nearby forests, which again would destroy those forests¹¹.

In terms of interaction of Pannonpower with the city council both partners were aware of when and how (formal or informal) to communicate, and of the nature of procedures (*milieu knowledge*). According to the statements by several local media organs the (former)¹² general director was deeply embedded into local politics, that is, he had very good personal relationships to the leading officials of the local government. But the new situation enforced new types of interactions. These cognitions resulted in an outplace event of the Urban Development Board into the power station, with the participation of the local press for introducing the new biomass block and the advantages of biomass-based operation for the city and its local community.

Analysing the sub-arena, the key actors are the company and the local community. In this context Pannonpower has to respond to the demands and challenges raised by scientists, experts, NGOs and inhabitants. (In this respect the most recent problem is that the planned energy-tree [biomass] plantation has a fairly intensive and large territory demand.)¹³ Therefore it is necessary for the given actor to select and apply the appropriate knowledge in a given situation.

Pannonpower is a holder of *the knowledge bundle 3*. It is manifested in the newspaper articles and in the reports broadcasted by the local television. Pannonpower has to convince the public through these channels about the benefits of the new investment to the public and to propagate that this green investment would serve the common welfare, that is: the new biomass block saves the climate and also helps to reduce the price of the heating. These propagandas have to be clear and understandable for “people of everyday life”, but it is only possible if Pannonpower knows the peculiarities and rules of this ‘world’. To achieve a better communication strategy Pannonpower must have information of the specialities of the local community. The mitigation of carbon-dioxide emission – as the manifestation of the EU-ETS – is also present in the communication. Certainly, while the environmental benefit is highlighted (in an explicit way), the aspect of profit maximization remains hidden.

¹¹ Minutes of the local governments meeting: http://varoslako.pecs.hu/onkormanyzat/kepviseloi_munka.

¹² A Case Study interview was made with the former general director who left the company during the summer of 2007 and his post was taken over by a French director. The former general director became the director of the Hungarian branch of Dalkia group which Pannonpower is also a part of.

¹³ Biomass now is made of the trees of the nearby forests but later on it will originate from the city’s surrounding lands (wheat and corn crop fields) grown on plantations which will require large territories for land use.

So the Power Plant normally uses expressions of *everyday knowledge* in the interaction with residents (via media), and strong *expert, professional, (scientific) knowledge* in the ‘battlefield’ of science.

Reflectivity and reflective knowledge can be identified in this sub-arena on behalf of Pannonpower. The task was double: firstly, the adaptation to the environmental challenge and secondly profit maximisation. Behind these two requirements the *expert/environmental* and the *economic knowledge* were interacting and reacting to the challenges of EU-ETS.

In terms of the community we focused on NGOs (and later on the media) – as a channel between the decision makers (in the local government and the company) and the residents. Analysing the activity of the NGOs in general, *knowledge of everyday life* is to be detected. NGOs on their websites try to access the average people and to call their attention to climate change. NGOs try to generalize and simplify their professional expert knowledge to allow a better understanding for the public. They use expressions of everyday life, instead of scientific or professional language, that is they use terms and metaphors like ‘*the government is going to provide further support for the biggest pollutants...*’¹⁴, etc. This metaphor may suggest that the NGO is aware of the institutional settings, however the phrase is literally not true and NGO also knows it. But these overstatements have greater mobilization force on people in everyday life. (These phenomena are indicating a knowledge of everyday and milieu knowledge possessed by these actors.) The phrases used are certainly not untrue; include the real state of the word but in an implicit way, and for us they suggest that actors using those phrases are well aware of economic and macroeconomic processes (economic/market knowledge) and also of processes of everyday life.

The investigation of local NGOs was fairly hard from the aspect of the topic due to the lack of their activity in this field. As described before, the new biomass plants generated several problems (trying to meet the requirements set by the EU-ETS). Although the new biomass plant would decrease the CO₂ emission, it would on the other hand utilise “healthy” trees from nearby forests, and later energy plants from biomass cultivations, which again will occupy large agricultural areas and therefore increase the price of agricultural products. However this means that implementing the requirements set by the EU-ETS results another environmental problem locally. Despite of the new environmental risks, local NGOs remained silent, according to our research outcomes, mainly due to the lack of knowledge and capacity. So we have found¹⁵ that none of the “green NGOs” dealt with the described problem. As the president of a selected NGO declared: “*in order to deal with this particular problem at least one expert is*

¹⁴ http://www.levego.hu/letoltes/kapcsolodo_anyagok/nkt2008-12_lmcs%20velemeny2007jan.pdf.

¹⁵ Interviews and newspaper article: *Mecsek: halványzöld civilek [Mecsek: “lightgreen” NGOs]* <http://www.pecsihirek.hu/?ac=cikk&id=4444>.

*needed who has months to study this special problem, in order to learn the specialties of it”;*¹⁴ to obtain expert knowledge in the field. Further NGOs do not have sufficient resources to “buy” knowledge, or to employ an expert to deal with this issue. Therefore in this case the missing resources are the filter of knowledge.

4.3 Filtering Mechanisms – Knowledge and Governance

Analysing the filtering processes we have overview the three mentioned sub-arenas. The different constellations of knowledge and governance modes predict and filter different knowledge and governance modes. The varying interests (long or short term perspectives) accompanied by various knowledge and governing mix.

Focusing on the sub-arena of the Pannonpower the first investment into biomass block implies market behaviour on behalf of the Power Plant. As the interviewee said *‘they (Pannonpower) were the first to sell one part of quota decrease to the World Bank which they were lobbying for in Hungary. They have done it within the framework of Joint Implementation.’* In reply to the question how a quota is given to a firm the interviewee expressed that above all great expert knowledge and intensive lobby power are necessary. *“The whole story is nothing but purchasing and selling.”* The *long term perspective* is the profit maximization requiring a strict hierarchical institutional setting (with relevant institutional knowledge). This filtering phenomenon predicts the necessity of the dominant role of institutional knowledge in the hierarchy (everybody knows what, how, when to do). The expert knowledge has a secondary (but important) role. Since all actors within the system have to know when, and how to use expert knowledge in the hierarchy in order to achieve the target of profit maximisation (but the whole process is determined by the “commander” – director general – and due to the networking, by the relationship of Pannonpower and the “mother” company). Market knowledge, which is not within the company, but is used by the company managers, is also important.

The communication between Pannonpower and the city council is not free of ambiguities and is continuously changing. Both parties try to bargain and focus on their individual contentment (the price of district heating)¹⁶ with *egoistic action orientation* using their market knowledge.

In terms of the discourse practice the decision-makers of the city prefer the formal, institutional way. But as the minutes of the general assembly show¹⁷ there

¹⁶ Olcsóbb lenne a távhő, ha... [District-heating could be cheaper, if...]. *Dunántúli Napló*, 25.01.2008. p. 2.

¹⁷ Minutes No. 3–1/2007/4 item No.15. on the agenda and also other minutes – available for the public on www.pecs.hu

is an internal debate on the manner of communication. The opposition prefers face to face meetings and negotiations and considers them very important but the majority of the city's officials decided maintain the strictly formal way of communication and interactions through the mayors office. As a response to this manner Power Station invited the City Development Committee – and local press organs – for a public meeting into the premises of the power station trying in this way to accelerate the decision-making process by the city and get into a more advantageous position through personal convincement and practical experiences.

One of the most crucial points was the common ownership of the local heating company. The example of this property and the decision making process on the new biomass blocks show that traditional professions (and expert/professional knowledge) must come to a role in the act of the local government. Concretely, the decision preparatory experts (lawyers, environmental engineers) are well aware of the professional part but as their positions are determined by hierarchical governance mode, they are excluded from decision-making processes therefore this knowledge should be applied by policy makers and local decision-makers. The knowledge filters are the decision-makers themselves, defined by the position. The actual interests determine which knowledge is relevant in a certain situation (like in the arguing situation – as the example shows – the expert/professional knowledge is involved).

Another argument for it is that the power station's former director general maintained excellent personal contacts with the city and its head officials and their relationship was so strong that on the 21st of January, 2007 the former director general was awarded the so called "Tüke" Prize.¹⁸ (This was to communicate to the general public that the matters between the firm and the city were based on political sympathy and close personal relations.)

The manners of actions are culturally determined. The strict formal and partly avoiding behaviour was a traditional entity of the earlier institutional settings. On the other hand the management intends to communicate for the public by this strictly regulated formal procedure that business is done in an open and transparent way without any corruption and no events may serve as a reason for suspecting corruption.

Consequently personal relationships and their transformation are the filtering mechanisms at this point.

At the first level governance arrangement due to the above (and earlier) mentioned reasons (interest conflicts originating from common property, the indirect presence of expert knowledge) politicians are trying to enforce their professional arguments by communicating through local authorities. The mayor and his deputy

¹⁸ Prize for citizens making huge efforts for the city of Pécs – <http://pecs.index.hu/index.php?id=7625>.

are in permanent contact with the Power Station but the previously cited minutes prove that the representatives do not receive relevant information in due time which would enable them to make competent decisions. (However here some dichotomy exists: as government party politicians are better informed than the opposition.) As a response to this challenge Pannonpower tried to bridge this information gap by manifesting the ‘power’ of its own expertise knowledge and to vindicate its own economic interests at the mentioned public meeting. Thus, although both parties had expert/professional knowledge for the preparation of decisions, the presence of economic/market knowledge was manifested on the decision-making level.

As far as the sub-arena of Pannonpower vs. local community is concerned we can discover another motive for the open and transparent ways of doing business. The business world uses this openness and the media for enforcing its own interests and for PR purposes (as the press not always treats firms in a gentle manner, especially those ones involved in environmental problems.) Naturally the firm makes it clear which pieces of information are public and for whom. These items are not selected randomly much more fairly consciously. This policy also defines which pieces of information should be kept in secret for the other party. Such behaviour is stemming partly from internationalization, the firms’ grouping into holdings or merging into multinational firms, and this integration process further increases the confidential nature of business information and the number of firms involved.

In order to manage public affairs Pannonpower has a well organised communication strategy. First Pannonpower had to learn the “public” manner or the ‘public language’ of interaction and communication. Pannonpower had to learn how to show and how to convince the public that the new investment is environment friendly, and that serves besides their economic interest public welfare as well.

In this field the media and the use of the media has an important role (on local level) from the aspect of Pannonpower, as a form of marketing and transparency. Highlighting the word/ metaphor of ‘green energy’ is very important¹⁹ from the aspect of source of the fuel (forests) and PR. Therefore the power station’s communication policy is fairly environmental friendly concealing at the same time the real (but well-known) business interests.

Thus, two types of time perspective can act here as filtering mechanisms. The long term perspective of the company is profitability and the environmental friendly functioning. The latter is more important for the local community. The short term perspective for the company is the contentment of the local community (which means that the company functioning is environmentally sustainable) ac-

¹⁹ Concerning the content analyses of the media.

quiring the permissions for the construction of the new biomass blocks as soon as possible. So the two parallel types of time perspectives filter the public use of the market/economic knowledge (on behalf of the company) but allow the use of everyday life knowledge (aimed at residents and citizens) in order to convince them about the green energy policy. The benefit of this marketing policy is double: it emphasises the environment-friendly character of production and the aspects of environment protection and hides the profit maximization target in the shadow.

Having regarded the local NGOs – as it was described before – the lack of the money acts as a filter of knowledge.

4.4 Conclusions

Summing up the outcomes of the emission trading process in the Hungarian case we can state that the policy was successful. On the local level the outcomes are ‘actions taken by the target groups because they are faced with the outputs’.²⁰ In our case the action is the newly constructed (and planned) biomass blocks which are to match the allocated quotas.

In their ideal forms the described governance modes mobilized a broad variety of knowledge forms. In order to realize profit, market participants have to consider different knowledge forms, but these are filtered by different mechanisms as short/long term perspective, predictability, institutionalization, personal skills and relations. (Certainly there are other environmental aspects which we should take into account as well, when we speak about environmental policy or sustainable developments like biomass plantations, but from the side of carbon-dioxide reduction the above mentioned resources lead to a success policy.)

‘One thinks that such a strict distribution system is working against economic interests. All the industrial and sectoral actors say so. They think, to the hell with it, I have new extra costs. This is their basic attitude. It was said during the discussion that if we get the quota we should not bargain with it but return it next year. But I say this is for trading. This is such a thing which should be sold and purchased on a daily basis. Therefore this is not a static thing which you get and then return. So this way of thinking is wrong.’²¹ As our case study showed Pannonpower has made a very rational decision when following this example it has replaced its fuel and applied the Best Available Technology. The new built (and planned) biomass blocks fulfilled the requirement to match the allocated quotas, and allowed the company to maximise profit. As we could see mar-

²⁰ Intervention Theory (Mickwitz, 2006).

²¹ Interview in the Ministry of Economic and Transport.

ket/economic knowledge was very important in the decision making process. Within the company it was accompanied by a dominant hierarchical governance mode, while in the communication with the local government networking was dominant. Although in both situations interests were identical (profit maximization) the ways of communication was different. The reason is that a company can only be successful if every action and knowledge is commanded and controlled in a hierarchical order. (If not, the company may be bankrupted.) On the other hand a local government has several different ways and manners leading to success and local governments as such will always exist, even if representatives and political parties are changing.

The relationship with the local community was based on networking in a certain way using generalization and the dominance of everyday-life knowledge. Other knowledge forms in the communication are usually hidden.

Summing up we can conclude the following at the local level. The hard economic interest (economic knowledge), and an expert knowledge (which amplitude depends on the process of learning) on behalf of the selected company is accompanied by a strict hierarchical governing mode within the company, with a networking behaviour within the company group and a discursive mode of interaction with the local government (*Table 1*).

Table 1

Conclusions

Sub-arenas/Case History	Knowledge Themes	Filtering Mechanisms	Conclusions
<i>Pannonpower</i> : Decisions on the project (biomass blocks) – challenge of ETS (climate change)	Profitability	Economic way of thinking – long term perspective	Economic logic with high expert knowledge in a strict hierarchical system
Relationship between <i>Pannonpower</i> and local government	Partly profitability, clean air, dilemma solving	Personal relationship (actors' intentions)	Good relations – arguing (mutual interests), <- -> bad relations – bargain (individual interests)?
Relationship between <i>Pannonpower</i> and local community	Hidden profitability, manifested environmental cogitation, dilemma solving	Long/short term perspective; actors' intentions	Successful outcome in green energy policy (ETS)

Source: Edited by the authors.

The case study shows that coupling networked management mechanisms with expert/professional knowledge and economic/market knowledge at the background have a very important role in the decision-making process of the national sustainability policy. For rationalizing harmonisation (e.g. timely coordination) procedures the hierarchical system and institutional knowledge are essential.

Summarizing the statements made: a strictly hierarchical steering mode (with institutional and expert knowledge) within the company; consultative, discursive behaviour towards the local government (mainly characteristic in the “first period”), high expert (and economic/market) knowledge are necessary for a successful emission trading as a green energy policy.

Acknowledgement

We would like to thank our colleagues in the institute and at the University of Pécs, and especially László Sutus and József Góman students of Department of Political Studies who helped in the collection of media sources. We also would like to express our sincere to our interviewee, especially to the planners, fellows and leaders of the regional and national development agencies who gave us necessary information in order to disclose the analysed processes as deeply as possible.

References

- Arató, A. 1999: *Civil society, revolution and constitution*. Budapest, Új Mandátum Könyvkiadó.
- Davoudi, S. 2006: Evidence-Based Planning. Rhetoric and Reality. – *DISP*. 2. pp. 14–25.
- Fernández, S. A. 2004: ‘Sustainability is cool’: rhetorical participatory discourse in the Spanish strategy for sustainable development. In: Lafferty, W. (ed.): *Governance for Sustainable Development. The Challenge of Adapting Form to Function*. Edward Elgar, Cheltenham, UK. pp. 128–162.
- Horváth, Zs. et al. 2004: *Az Európai Unió környezetvédelmi szabályozása* [The environment regulation of the EU]. Budapest, KJK–Kerszöv Kft.
- Heinelt, H. et al. 2006: Governance for Sustainability. (Conceptual Frame) [online] G-FORS Project, Darmstadt/Erkner. http://www.g-ors.eu/fileadmin/download/papers/GFORS_ConceptualFrame_Bristol.pdf [21.12.2006].
- Kiss, T. – Girán, J. 2004: Verseny helyett kooperáció. Pécs ÖKOVÁROS – Mecsek–Dráva ÖKORÉGIÓ Program bemutatása. [Cooperation instead of Competition. Introduction of Pécs ECO-CITY Mecsek Dráva ECOLOGICAL REGION Programme]. – *Tér és Társadalom*. 4. pp. 85–94.
- Lafferty, W. M. 2004: *Governance for Sustainable Development: The Challenge of Adapting Form to Function*. Cheltenham, Edward Elgar Publishing Limited.
- Matthiesen, U. 2005: KnowledgeScapes – Pleading for a knowledge turn in socio-spatial research. [online] <http://www.irs-net.de/download/KnowledgeScapes.pdf>
- Mickwitz, P. 2006: Environmental Policy Evaluation: Concepts and Practice. *Commentationes Scientiarum Socialium* 66. The Finnish Society of Sciences and Letters.
- Nilsson, M. – Dalkman, H. 2001: Decision making and strategic environmental assessment. – *Journal of Environmental Assessment Policy and Management*. 3. pp. 305–327.
- Nitz, T. – Brown, A. L. 2001: Sea must learn how policy making works. *Journal of Environmental Assessment Policy and Management*. 3. pp. 329–442.
- Ostrom, E. 2005: *Understanding Institutional Diversity*. Princeton University Press, Princeton and Oxford.
- Ostrom, E. – Gardner, R. – Walker, J. 1994: *Rules, Games, and Common Pool Resources*. Ann Arbor, University of Michigan Press.
- Sabatier, P. A. (ed.) 1999: *Theories of the Policy Process*. Boulder, Westview Press.
- Szilvácsku, Zs. 2003: *Stratégiai környezeti vizsgálatok gyakorlata az Európai Unióban* [The European practice of strategic environmental planning.]. Budapest, Vitaregnat Bt.

The *Discussion Papers* series of the Centre for Regional Studies of the Hungarian Academy of Sciences was launched in 1986 to publish summaries of research findings on regional and urban development.

The series has 5 or 6 issues a year. It will be of interest to geographers, economists, sociologists, experts of law and political sciences, historians and everybody else who is, in one way or another, engaged in the research of spatial aspects of socio-economic development and planning.

The series is published by the Centre for Regional Studies.

Individual copies are available on request at the Centre.

Postal address

Centre for Regional Studies of the Hungarian Academy of Sciences

P.O. Box 199, 7601 PÉCS, HUNGARY

Phone: (36–72) 523 800

Fax: (36–72) 523 803

www.rkk.hu

<http://www.dti.rkk.hu/kiadv/discussion.html>

Director general

Gyula HORVÁTH

Editor

Zoltán GÁL
galz@rkk.hu

Papers published in the Discussion Papers series

Discussion Papers / Specials

- BENKŐNÉ LODNER, Dorottya (ed.) (1988): Environmental Control and Policy: Proceedings of the Hungarian–Polish Seminar in the Theoretical Problems of Environmental Control and Policy
- OROSZ, Éva (ed.) (1988): Spatial Organisation and Regional Development Papers of the 6th Polish–Hungarian geographical Seminar
- DURÓ, Annamária (ed.) (1993): Spatial Research and the Social–Political Changes: Papers of the 7th Polish–Hungarian Seminar
- DURÓ, Annamária (ed.) (1999): Spatial Research in Support of the European Integration. Proceedings of the 11th Polish–Hungarian Geographical Seminar (Mátraháza, Hungary 17–22 September, 1998)
- GÁL, Zoltán (ed.) (2001): Role of the Regions in the Enlarging European Union
- HORVÁTH, Gyula (ed.) (2002): Regional Challenges of the Transition in Bulgaria and Hungary
- KOVÁCS, András Donát (ed.) (2004): New Aspects of Regional Transformation and the Urban–Rural Relationship
- BARANYI, Béla (ed.) (2005): Hungarian–Romanian and Hungarian–Ukrainian border regions as areas of co-operation along the external borders of Europe
- ENYEDI, György – KOVÁCS, Zoltán (eds.) (2006): Social Changes and Social Sustainability in Historical Urban Centres. The Case of Central Europe
- KOVÁCS, András Donát (ed.) (2007): Regionality and/or locality
- SZIRMAI, Viktória (ed.) (2007): Social Inequalities in Urban Areas and Globalization. The Case of Central Europe
- ILLÉS, Iván (2008): Visions and Strategies in the Carpathian Area (VASICA)
- GÁL, Zoltán – RÁCZ, Szilárd (eds.) (2008): Socio-Economic Analysis of the Carpathian Area

Discussion Papers

- No. 1 OROSZ, Éva (1986): Critical Issues in the Development of Hungarian Public Health with Special Regard to Spatial Differences
- No. 2 ENYEDI, György – ZENTAI, Viola (1986): Environmental Policy in Hungary
- No. 3 HAJDÚ, Zoltán (1987): Administrative Division and Administrative Geography in Hungary
- No. 4 SIKOS T., Tamás (1987): Investigations of Social Infrastructure in Rural Settlements of Borsod County
- No. 5 HORVÁTH, Gyula (1987): Development of the Regional Management of the Economy in East-Central Europe
- No. 6 PÁLNÉ KOVÁCS, Ilona (1988): Chance of Local Independence in Hungary
- No. 7 FARAGÓ, László – HRUBI, László (1988): Development Possibilities of Backward Areas in Hungary
- No. 8 SZÖRÉNYINÉ KUKORELLI, Irén (1990): Role of the Accessibility in Development and Functioning of Settlements

- No. 9 ENYEDI, György (1990): New Basis for Regional and Urban Policies in East-Central Europe
- No. 10 RECHNITZER, János (1990): Regional Spread of Computer Technology in Hungary
- No. 11 SIKOS T., Tamás (1992): Types of Social Infrastructure in Hungary (to be not published)
- No. 12 HORVÁTH, Gyula – HRUBI, László (1992): Restructuring and Regional Policy in Hungary
- No. 13 ERDŐSI, Ferenc (1992): Transportation Effects on Spatial Structure of Hungary
- No. 14 PÁLNÉ KOVÁCS, Ilona (1992): The Basic Political and Structural Problems in the Workings of Local Governments in Hungary
- No. 15 PFEIL, Edit (1992): Local Governments and System Change. The Case of a Regional Centre
- No. 16 HORVÁTH, Gyula (1992): Culture and Urban Development (The Case of Pécs)
- No. 17 HAJDÚ, Zoltán (1993): Settlement Network Development Policy in Hungary in the Period of State Socialism (1949–1985)
- No. 18 KOVÁCS, Teréz (1993): Borderland Situation as It Is Seen by a Sociologist
- No. 19 HRUBI, L. – KRAFTNÉ SOMOGYI, Gabriella (eds.) (1994): Small and medium-sized firms and the role of private industry in Hungary
- No. 20 BENKŐNÉ Lodner, Dorottya (1995): The Legal-Administrative Questions of Environmental Protection in the Republic of Hungary
- No. 21 ENYEDI, György (1998): Transformation in Central European Postsocialist Cities
- No. 22 HAJDÚ, Zoltán (1998): Changes in the Politico-Geographical Position of Hungary in the 20th Century
- No. 23 HORVÁTH, Gyula (1998): Regional and Cohesion Policy in Hungary
- No. 24 BUDAY-SÁNTHA, Attila (1998): Sustainable Agricultural Development in the Region of the Lake Balaton
- No. 25 LADOS, Mihály (1998): Future Perspective for Local Government Finance in Hungary
- No. 26 NAGY, Erika (1999): Fall and Revival of City Centre Retailing: Planning an Urban Function in Leicester, Britain
- No. 27 BELUSZKY, Pál (1999): The Hungarian Urban Network at the End of the Second Millennium
- No. 28 RÁCZ, Lajos (1999): Climate History of Hungary Since the 16th Century: Past, Present and Future
- No. 29 RAVE, Simone (1999): Regional Development in Hungary and Its Preparation for the Structural Funds
- No. 30 BARTA, Györgyi (1999): Industrial Restructuring in the Budapest Agglomeration
- No. 31 BARANYI, Béla–BALCSÓK, István–DANCS, László–MEZŐ, Barna (1999): Borderland Situation and Peripherality in the North-Eastern Part of the Great Hungarian Plain
- No. 32 RECHNITZER, János (2000): The Features of the Transition of Hungary's Regional System
- No. 33 MURÁNYI, István–PÉTER, Judit–SZARVÁK, Tibor–SZOBOSZLAI, Zsolt (2000): Civil Organisations and Regional Identity in the South Hungarian Great Plain
- No. 34 KOVÁCS, Teréz (2001): Rural Development in Hungary
- No. 35 PÁLNÉ, Kovács Ilona (2001): Regional Development and Governance in Hungary

- No. 36 NAGY, Imre (2001): Cross-Border Co-operation in the Border Region of the Southern Great Plain of Hungary
- No. 37 BELUSZKY, Pál (2002): The Spatial Differences of Modernisation in Hungary at the Beginning of the 20th Century
- No. 38 BARANYI, Béla (2002): Before Schengen – Ready for Schengen. Euroregional Organisations and New Interregional Formations at the Eastern Borders of Hungary
- No. 39 KERESZTÉLY, Krisztina (2002): The Role of the State in the Urban Development of Budapest
- No. 40 HORVÁTH, Gyula (2002): Report on the Research Results of the Centre for Regional Studies of the Hungarian Academy of Sciences
- No. 41 SZIRMAI, Viktoria – A. GERGELY, András – BARÁTH, Gabriella–MOLNÁR, Balázs – SZÉPVÖLGYI, Ákos (2003): The City and its Environment: Competition and/or Co-operation? (A Hungarian Case Study)
- No. 42 CSATÁRI, Bálint–KANALAS, Imre–NAGY, Gábor –SZARVÁK, Tibor (2004): Regions in Information Society – a Hungarian Case-Study
- No. 43 FARAGÓ, László (2004): The General Theory of Public (Spatial) Planning (The Social Technique for Creating the Future)
- No. 44 HAJDÚ, Zoltán (2004): Carpathian Basin and the Development of the Hungarian Landscape Theory Until 1948
- No. 45 GÁL, Zoltán (2004): Spatial Development and the Expanding European Integration of the Hungarian Banking System
- No. 46 BELUSZKY, Pál – GYŐRI, Róbert (2005): The Hungarian Urban Network in the Beginning of the 20th Century
- No. 47 G. FEKETE, Éva (2005): Long-term Unemployment and Its Alleviation in Rural Areas
- No. 48 SOMLYÓDYNÉ PFEIL, Edit (2006): Changes in The Organisational Framework of Cooperation Within Urban Areas in Hungary
- No. 49 MEZEI, István (2006): Chances of Hungarian–Slovak Cross-Border Relations
- No. 50 RECHNITZER, János – SMAHÓ, Melinda (2006): Regional Characteristics of Human Resources in Hungary During the Transition
- No. 51 BARTA, Györgyi – BELUSZKY, Pál – CZIRFUSZ, Márton – GYŐRI, Róbert – KUKELY, György (2006): Rehabilitating the Brownfield Zones of Budapest
- No. 52 GROSZ, András (2006): Clusterisation Processes in the Hungarian Automotive Industry
- No. 53 FEKETE, G. Éva – HARGITAI, Judit – JÁSZ, Krisztina – SZARVÁK, Tibor – SZOBOSZLAI, Zsolt (2006): Idealistic Vision or Reality? Life-long learning among Romany ethnic groups
- No. 54 BARTA, Györgyi (ed.) (2006): Hungary – the New Border of the European Union
- No. 55 GÁL, Zoltán (2006): Banking Functions of the Hungarian Urban Network in the Early 20th Century.
- No. 56 SZÖRÉNYINÉ, Kukorelli Irén (2006): Relation Analysis in Rural Space – A Research Method for Exploring the Spatial Structure in Hungary
- No. 57 MAUREL, Marie-Claude – PÓLA, Péter (2007): Local System and Spatial Change – The Case of Bóly in South Transdanubia
- No. 58 SZIRMAI, Viktória (2007): The Social Characteristics of Hungarian Historic City Centres
- No. 59 ERDŐSI, Ferenc – GÁL, Zoltán – GIPP, Christoph – VARJÚ, Viktor (2007): Path Dependency or Route Flexibility in Demand Responsive Transport? The Case Study of TWIST project

- No. 60 PÓLA, Péter (2007): The Economic Chambers and the Enforcement of Local Economic Interests
- No. 61 BUDAY-SÁNTHA, Attila (2007): Development Issues of the Balaton Region
- No. 62 LUX, Gábor (2008): Industrial Development, Public Policy and Spatial Differentiation in Central Europe: Continuities and Change
- No. 63 MEZEI, Cecília (2008): The Role of Hungarian Local Governments in Local Economic Development
- No. 64 NAGY, Gábor (2008): The State of the Info-communication Markets in Dél-Alföld Region – Hungary
- No. 65 HORVÁTH, Gyula (2008): Regional Transformation in Russia
- No. 66 BELUSZKY, Pál – SIKOS T., Tamás (2008): Changing Village-Typology of Rural Settlements in Hungary at the Beginning of the Third Millennium
- No. 67 CSIZMADIA, Zoltán – GROSZ, András (2008): Regional Innovation System in West Transdanubia
- No. 68 HARDI, Tamás (ed.) (2008): Transborder Movements and Relations in the Slovakian–Hungarian Border Regions
- No. 69 ERDŐSI, Ferenc (2008): Global and Regional Roles of the Russian Transport Infrastructures
- No. 70 CSIZMADIA, Zoltán (2009): Cooperation and Innovativity: the Network Foundations of the Regional System of Innovation
- No. 71 HAJDÚ, Zoltán – LUX, Gábor – PÁLNÉ KOVÁCS, Ilona – SOMLYÓDYNÉ PFEIL, Edit (2009): Local Dimensions of a Wider European Neighbourhood: Crossborder Relations and Civil Society in the Hungarian–Ukrainian Border Area
- No. 72 HORVÁTH, Gyula (2009): Cohesion Deficiencies in Eastern and Central Europe – Inequalities of Regional Research Area