

National Review on Biodiversity and Companies

Hungary

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Introduction

The aim of this study is to give an overall picture on how national regulation and business actors consider biodiversity in Hungary, and what measures exist to mitigate the business impact on biodiversity. We used different sources and methods to gather information on this topic: a comprehensive internet search was complemented by the review of the relevant Hungarian literature and official documents, personal and phone interviews, as well as an e-survey sent out to prominent biodiversity researchers in Hungary. We contacted the Hungarian Ministry of Environment and Water, the KÖVET Association for Sustainable Economies and the BirdLife Hungary for personal interviews, while some other experts (NGOs and entrepreneurs mainly) were contacted by phone, or interviews had made with them previously were used for the analysis.¹ However, we should admit that data collection was often a demanding exercise as the topic under investigation is not yet a well-known and consciously managed issue in Hungary.

Most of our interviewees made a clear distinction between two groups of enterprises when they were talking about the interrelationship of business and biodiversity. The first one is the group of bigger companies contributing to biodiversity loss and environmental degradation with their everyday practices. These companies often have environmental reports and some measures for mitigating their impacts on biodiversity. However, most of these measures are enforced by the law and cannot be seen as environmental conscious decisions, partly because the direct and indirect impact a company has on biodiversity is often hardly measurable and accountable. The other group consists of extensive farmers or small and medium size enterprises living on eco-tourism, which both have a stake in biodiversity maintenance. Agro-environmental subsidies or Natura2000 payments are important incentives for them, albeit biodiversity management is often their personal mission: a flagship under which profitability and ecological considerations can be united. We think this distinction characterises the Hungarian situation – where environmental policy makers and NGOs are far more passionate proponents of biodiversity than companies – quite well, thus we will differentiate between these groups in the report.

The paper is divided into two distinctive parts, from which the first one is dedicated to the legal background of business and biodiversity issues in Hungary, while the second one focuses on measures and activities launched and practiced by companies. In the first part we will introduce the Hungarian legal framework and then present the Environmental Impact Assessment (EIA) procedure as well as the Strategic Impact Assessment (SIA) procedure. This is followed by discussing the tools for integrating biodiversity-related issues into EIA, such as biodiversity impact assessment or mitigation/compensation measures, concerning the impacts business actors have on biodiversity. We will also introduce the agencies existing in this field. The first part is closed by a brief conclusion section. In the second part of the report, we discuss first the measures applied by companies to alleviate their impacts on biodiversity: we will analyse environmental and sustainability reports as well as mitigation efforts of bigger industrial companies, but we will present some examples of pro-biodiversity businesses, too. Next, we introduce national business and biodiversity initiatives in Hungary, among which two examples are worth noting: the Biodiversity Technical Assistance Unit run by the BirdLife Hungary, and the Business and Biodiversity Conference organised by the CEEweb (the first is a national, the second is an international NGO). In the last part of the report we

¹ Data sources used as background material and methods for collecting and analysing data are introduced in more details in the corresponding parts of the report.

will briefly summarize the few examples of research projects realised in scientific-business partnerships, followed by a list of published references on biodiversity and business.

Part I: Incorporating Biodiversity-related Issues into Environmental Impact Assessment Legislation in Hungary

In this chapter we give a brief overview of the Hungarian Environmental Impact Analysis (EIA) and Strategic Impact Assessment (SEA) legislation and present the tools that are available in Hungary for the integration of biodiversity aspects. In Hungary it was the National Concept and Requirement System for Environmental Protection that in 1980 formulated a regulation which made it obligatory to consider environmental impacts with the implementation of investments. The (overall) requirements concerning the impact assessment were included in Act LIII of 1995 on the general rules of environmental protection.

1. Legal framework

In Europe impact assessments are mostly ordained for particular activities that are specified by the member states on the basis of general or detailed lists. In Hungary the term 'activity' equals mainly to investments, thus environmental impact assessments are primarily related to the authorisation system of investments. Apart from investments impact assessments can be carried out at higher-level phases of planning and approval (e.g. resettlement plans and programmes)

Act LIII of 1995 on the general rules of environmental protection as well as the decrees on implementation specify the requirements of content and form of impact assessments. Since the conception of the first decree on Environmental Impact Assessment both the legal regulation and the practice of environmental impact assessments have been developing. The process of intense harmonisation of law following Hungary's EU-accession has brought about several changes in the legal regulation of environmental protection. The changes concerned previous regulations on impact assessments as well, and, as a result, Government Decree No. 314/2005 (XII. 25.) on environmental impact assessment and the integrated environmental permit took effect from 1 January 2006, establishing the requirements concerning the procedures of environmental impact assessments and uniform authorisation of environmental use in a single law.

Hungary has also developed mechanisms to ensure that due consideration is given to the environmental consequences of national programmes and policies that are likely to have significant adverse impacts on biological diversity. The Hungarian Parliament modified the Act LIII of 1995 on Environmental Protection and a concrete legislation was issued in 2005. The aim of the Government Decree No. 2/2005 (I. 11.) on the environmental assessment of certain plans and programs is to use environmental assessments to assess not only the impact of individual projects, but also their cumulative and global effects, incorporating biological diversity considerations at the decision-making and/or environmental planning level.

The Convention on Biological Diversity (CBD) was signed by Hungary on 13 June, 1992 at the UN Conference on Environment and Development in Rio de Janeiro (Brazil). The CBD was promulgated by Act LXXXI of 1995. Paragraph 1 of Article 14 of the Convention on Biological Diversity in conjunction with other components of the Convention and to integrate environmental impact assessment into the work programmes on thematic areas, including the biological diversity of inland water ecosystems, marine and coastal biological diversity, forest biological diversity, agricultural biological diversity, and the biological diversity of dry and sub-humid lands, and on alien species and tourism;

In 1997 Hungary ratified the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention). The Espoo (EIA) Convention stipulates the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. Hungary has joined the Convention on Cooperation for the Protection and Sustainable Use of the Danube River and announced in the Government Decree No. 74/2000 (V. 31.). Hungary has also joined the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters.

According to the paragraph (1) of §10 of the Government Decree on implementation Habitat Directive before the approval or authorisation of a plan or investment that does not directly serve or is not indispensable for the environmental management of any Natura 2000 territory but may have a significant impact on any Natura 2000 territory, the plan's elaborator or the authority licensing the investment must examine the plan's or investment's impact on the species and habitats occurring on that Natura 2000 territory. The elaboration of measures necessary for the government decree's implementation is underway.

The authority responsible for the EIA/SEA is the Environmental Safety Department of the Ministry of Environment and Water, and the Department for Use of the Environment of the National Chief Inspectorate for Environmental Protection and Water Management,. The department of Impact Assessment of the Ministry of Environment and Water is responsible for regulating procedures of environmental impact analysis.

Since the accession of Hungary to the European Union, the fact that the EU stresses the importance of biodiversity policies, and other recent developments (such as the threat of genetically modified organisms) have contributed to a reassessment of the significance of biodiversity policies. Related issues have acceded to the highest importance in Hungarian politics.

The European Community's nature conservation legislation gives similar importance to the interests of nature conservation and public interests, including those of economic nature, while Hungarian national legislation gives priority to the interests of conservation over economic interests. The other important difference is that European Community legislation provides very detailed implementation rules, while Hungarian legislation gives more consideration power to the administrative authorities in their decisions.

2. Environmental Impact Analysis Procedure

Hungary has developed legislation requiring an environmental impact assessment of proposed projects likely to have adverse effects on biological diversity. The aim of the Government Decree No. 314/2005 (XII.25.) on environmental impact assessment (EIA) is to identify, describe and evaluate the effects of various activities and development specified in the

Annexes. Mainly those effects are considered that may influence humans, animals, plants, soil, water, atmosphere, climate and landscape.

The first phase of the environmental impact analysis is **the preliminary environmental study**. Certain activities are specified in the Government Decree No. 314/2005 for which the preliminary environmental study is required. After considering the preliminary environmental study, the environment protection authority decides what type of specific procedure is applicable to the planned activity: *environmental impact analysis; IPPC (Integrated Pollution Prevention and Control) procedure; other official procedure (for example site licensing procedure)*.

The preparation of an environmental **impact analysis** shall be obligatory for activities listed in Annex 1. of Government Decree No. 314/2005. According to the Annex 5 of this decree, the need for an environmental impact analysis may be warranted by the size of the area used, the extent of the exploitation of natural resources, or the restriction of their usability, the extent of the risk of accident or breakdown, the sensitivity of the area used, the relative scarcity of the natural resources concerned, etc. (Balázs, 2007)

Content requirements for the environmental impact analysis are specified in Annex 6. The environmental impact analysis has to describe, evaluate and assess the environmental effects and consequences of the planned activity. The environmental impact analysis has to cover the environmental elements of the activity (soil, air, water, wildlife, the built environment including the architectural and archaeological heritage) the systems, processes and structure of the environmental compartments, in particular, landscape, settlements, climate, the natural (ecological) system and biological diversity, health or socio-economic situation of the concerned population; the specification of the expected impact and whether the operation can be licensed.

The period of validity of the environmental license is at least five years, unless other legislation stipulates a different period for the pursuance of the given activity or the operation of the facility, but it can also be issued for an indeterminate period. In the event that an activity or facility is planned which is used exclusively or mainly to develop or test new methods or products, the period of validity of the environmental license may not be longer than two years. (Balázs, 2007)

Based on the preliminary environmental study, the environment protection inspectorate will decide about conducting **an IPPC procedure**. The objective of the permitting system is to ensure the followings:

- the environment user should make measures to prevent pollution, with special attention to the application of Best Available Techniques,
- the activity should not cause environmental loads,
- the environment user should reduce the amount of waste generated,
- recycling of the waste generated, and its safe disposal,
- efficient use of energy,
- prevention of accidents,
- and in the event of their occurrence, reduction of their environmental consequences,
- on-site restoration of the possibly damaged environment, if the activity is terminated.

The use of the best available technology is required. When defining the Best Available Techniques the authority has to take into account the technical characteristics of the installation, its geographical location and the local environment protection conditions.

The integrated permitting procedure emphasizes those industrial and industrial-scale activities, e.g. certain agricultural activities, where the probability or likeliness of environmental damage is the highest. The legislation sets capacity limits for the respective activity, over which and integrated permit is necessary for the operation.

If a new activity or operation is planned, the licensing procedure is initiated by the request of the operator. In the event of an already existing activity/operation, the Inspectorate will obligate the operator to carry out a full environmental audit when the IPPC is obtained on the first occasion. Government Decree 314/2005 (XII.25.) requires operators to meet the provisions of the IPPC permit with respect to their existing facilities by 31 October 2007 at the latest. By this deadline more than approx. 96%-of the operators (974) meet this requirement.

The Inspectorate may require the **combined performance of the environmental impact analysis and the IPPC procedure**. A two-phase, linked procedure may be conducted when the Inspectorate establishes about an activity that it is subject to both the environmental impact analysis and the IPPC procedure, but the two procedures cannot be combined. The first phase is governed by the rules of the environmental impact analysis, while the second phase by those of the IPPC procedure (Balázs, 2007). The IPPC permit may be issued for a specified period not exceeding five years; the requirements and conditions set forth in it must be reviewed at least every five years. (Balázs, 2007)

3. Strategic Impact Assessment Procedure

According to the Government Decree No. 2/2005 (I. 11.) on the environmental assessment of certain plans and programs the preparation of an environmental assessment is obligatory for the following Plans and Programs:

1. Regional plans
2. Settlement structure plans, local construction codes and management plans applicable for the whole settlement
3. National Development Plan
4. Operative Programs of the National Development Plan
5. National, regional, county or local waste management plans, and the joint waste management plans of micro-regions
6. Mid-term plan of agricultural policy
7. National Water Management Concept and National Programs
8. River basin management plan
9. National or local road network development plan
10. Plans and Programs that are prepared for agriculture, forestry, fisheries, energy, industry, transport, traffic, waste management, water management, electronic telecommunication, tourism, regional development

11. Plans and Programs that may have significant adverse effects on Natura 2000 areas.

According to Environmental Act, §43 (5) b) the necessity of environmental assessment may be decided on a case-by-case determination of the significance of the likely environmental effects in the case of small scale plans and programs (such as regulatory plans or local construction codes being prepared for a part of a settlement, or other Plans and Programs that determine the use of small areas at the local level)

According to Appendix 4 of the Government Decree No. 2/2005 (I.11.) the general content requirements for the environmental evaluation:

1. A description of the process of preparing the environmental evaluation:
2. Brief description of the plan or program alternatives (hereinafter referred to as “alternatives”) assessed during the preparation of the plan or program.
3. A description of the environmental effects and consequences of the implementation of the plan or program, or plan or program alternatives.
4. Evaluation of the environmental efficiency of the measures included in the plan or program with a view to avoid, reduce or compensate for the likely environmental effects of implementation of the plan or program, and proposals for other necessary measures.
5. Proposals on environmental measures, provisions, conditions and criteria that should be taken into consideration in other plans and programs affected by the plan or program.
6. An evaluation of the proposals for monitoring the likely environmental effects of the implementation of the plan or program, and proposals for other required measures.

Considering the environmental effects, a prognosis should be made about the likely environmental effects and consequences of implementing the plan or program. There should take a special emphasis on preparing prognosis of the effect on the systems, processes and structure of the environmental compartments, in particular, landscape, settlements, climate, the natural (ecological) system and biological diversity. The impacts on the status, conditions and character of Natura 2000 areas also should be analyzed, as well as the potential for reserving, maintaining, restoring or improving the favorable natural conditions of the local habitats and species.

4. Tools for Incorporating Biodiversity-related Issues into Environment-Impact Assessment

In this section we overview the existence / availability of some specific tools for incorporating biodiversity into EIA/SEA procedure.

4.1. National Biodiversity Strategy and Action Plans (NBSAP)

The existence of a national biodiversity strategy and action plan is an important prerequisite for adequate incorporation of biodiversity-related issues into EIA/SEA. It seems that the political force of natural conservation is weak for the effective inter-sectoral implementation of the Biodiversity Convention. The national biodiversity strategy was prepared years ago and

was accepted by the Ministry of Environment and Water; however, it has not been discussed by other ministries and consequently has not been announced yet either. It would become truly valid and turn a relevant document for other ministries only if it were issued as a parliamentary resolution or accepted by the prime minister's office.

4.2. Guidelines for Incorporating Biodiversity-related Issues into Environment-Impact Analysis

The existence of Guidelines for Incorporating Biodiversity-related Issues into Environment-Impact Analysis is also an important prerequisite. A number of convention bodies, as well as international and national organizations and administrations have published specific guidelines. Many guidelines as well as the CBD recommend adopting and applying an ecosystem approach. The European Union has also issued methodological guidelines about the assessment of impacts on Natura2000 sites.

We could not find any country specific guidelines for Hungary, along which we could incorporate biodiversity-related issues into environmental impact assessment processes. Yet, a possible guideline is the effect-matrix methodology elaborated by the experts of ÖKO Ltd in 1998. This effect-matrix is a tool that can be simply used to systematically examine the expectable environmental effects. Its lines refer to the phases of the entire life-cycle of an activity as well as their characteristic elements. Its columns are arranged according to the affected subjects of environmental impacts. Plant and animal species are present among the potentially affected subjects. This procedure integrated the ecosystem approach by regarding ecosystems as potentially affected subjects.

4.3. Guidelines for Incorporating Biodiversity-related Issues into Environmental Assessment of Programmes and Plans

The United Nations Economic Commission for Europe (UNECE) elaborated the "Protocol on Strategic Environmental Assessment as a part of the Convention on Environmental Impact Assessment in a Transboundary Context" (SEA Protocol) and adopted it in Kiev on May 21st 2003.

A first Hungary specific methodology of SEA was developed for assessing the impact of the Regional Operational Programme (ROP, 2003). After that several SEA were prepared such as the SEA of Hungarian Transport Policy (plan) (2003-2015) was completed in 2004 and "Széchenyi" Motorway Development Plan which tried to assess the impact of motorway projects. According to Fleischer (Fleischer et al, 2005) the preparation process was too fast and there was no way to feedback the results to the policy. After issuing the Government Decree No. 2/2005 on "Environmental assessment of certain programmes and plans" the number of Strategic Impact Assessment is increased. For example 88 strategic environmental impact assessments were made in 2006.

Government Decree No. 2/2005 does not include a detailed methodology about SEA. One of the problems with the SEA processes is that there is not enough time to do it because of the delay of the programmes.

Act XI of 1987 on Legislation orders that a preliminary assessment of the eventual impacts of a new law is part of the regulatory/legislative process. As a part of „better regulation” process, the Note of the Ministry of Justice of 8001/2006 on the Methodology of Conducting RIA was published providing practical information for civil servants on how to manage an impact

assessment project. The regulation impact assessment is a process of information collection and analysis, where the primary goal is to enhance the effectiveness of laws by examining the short-term and long-term social, economic and other impacts of codified or effective laws. This document refers to the Decision VI/7 of CBD (Identification, monitoring, indicators and assessments, annex: Guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and / or process and in strategic environmental assessment) and the text of the annex is used in the guideline.

4.4. Site specific data availability for prediction of impacts on biodiversity

The availability of GIS-based ecological data at local level is limited. Habitat and soil maps about the actual investment territory are not accessible. There are no such maps at the scale of 10000 covering the country's entire territory. Costs of obtaining data necessary for the prediction of impacts made on biodiversity as well as for the identification of the affected subjects might be rather high. That is the reason why the experts preparing impact analyses considered only protected areas and protected species, and seldom considered the impacts at the ecosystem level. Natura 2000 was frequently referred to in the EISs in Hungary.

The availability of the adequate methodologies for accurate, systematic and quantified predictions of impacts on biodiversity at local level is very limited. A wide range of ecological models can potentially be used as prediction tools for biodiversity assessments in the EIA and SEA processes. These models availability for the assessment process is limited in Hungary.

4.5. Pilot projects for good example for taking biodiversity into account

In our analysis we could not find any pilot projects in Hungary that would make good case studies for an impact assessment that takes the ecosystem approach into account. There has been no any case examples of how possible impacts on Natura 2000 areas is taken in account in the licensing procedure.

4.6. National reports on practices, mechanisms and experiences in the area of strategic environmental assessment and impact assessment:

There has been no comprehensive analysis made either that would evaluate existing guidelines, procedures and provisions for environmental impact assessment based on the aspects of biodiversity. According to the CBD every participants should prepare regularly national reports on the status of implementation. There are some paragraphs in the 3rd. national report of Hungary about the EIA/SEA legislation, which summarize the legal framework and which does not give overview on practices and experiences. Based on 2 EIA studies which are available on internet we could claim that the nature of assessments is descriptive and some protected areas and protected species are mentioned as main affected subjects of environmental impacts.

4.7. An adequate participation of stakeholders and the public at the various stages of the environmental impact analysis²

Wide range of information and documents relating to the EIA procedure (such as notices, public hearing minutes, final decision) have to be actively published by the environmental authorities, while the remainder of the documents generated in the procedure (*e.g.* expert opinions) have merely to be made accessible to the public. Access to certain documents is restricted however as they constitute state or service secret, or – based on the classification by the applicant – are considered as confidential commercial information. Furthermore, there is no public participation in procedures subject to military confidentiality (defence projects). In these cases however the environmental inspectorates duly inform the clerks of the affected municipalities.

Preliminary phase of the EIA procedure:

Following the submission by the developer of the application for permit and the preliminary assessment documentation the competent environmental, nature conservation and water inspectorate publishes a public notice at its premises and on its web site. The preliminary assessment documentation, the original application for permit as well as the public notice are also forwarded to the clerk of the municipalities concerned who have to ensure access to these documents at designated premises and have to publicize the project through bill posting or any other appropriate way. Before reaching a decision, the competent authority has to examine the merit of all comments received.

EIA procedure:

If it is determined that an *EIA is necessary* the procedure starts following the completion of the preliminary assessment phase. Commencement of the procedure is publicized by the competent authority by way of public notices and newspaper advertisements. The content of the public notice is defined by the Administrative Procedures Code and the Government Decree in accordance with the relevant provision of the Convention. The environmental impact study, the application, the public notice and the non-technical summary are also forwarded to the clerk of the municipalities concerned who have to ensure access to these documents at designated premises and have to publicized the project through bill posting or any other appropriate way.

It is mandatory to hold a public hearing at the least at the municipality of the location of the activity. Before reaching a decision, the competent authority – and all other authorities involved in the procedure – has to examine the merit of all comments received. The reasoning of the decision has to provide a summary of the involvement of the public as well as the comments received.

The decision is publicized by way of a notice and is sent to the municipalities concerned. When the decision becomes final it also has to be made public in its entirety by the authority.

IPPC procedure:

The public concerned is informed of the procedure by way of bill posting or any other appropriate way. Guidance on participation is also provided in the public notice issued by the environmental inspectorate on its own news board and web site. The public notice contains a brief description of the location and the nature of the planned activity (as in the application for permit), with a particular attention to the use of the best available technique, the description of the affected area. It must also specify how and when the original application can be consulted

² This section is based on National Report on the Implementation of the Aarhus Convention

and must also contain a call for written comments that are to be submitted to the environmental inspectorate or the clerk of the affected municipalities.

The comments are forwarded by the environmental authority to the applicant for permit who may react on these comments. Before reaching a decision the competent environmental authority – together with all other authorities involved in the procedure – has to examine the merit of all comments received. The legal and factual evaluation of the comments has to be summarized in the reasoning part of the resolution. The public is informed of the final decision of the environmental authority through its publication, by both the competent authority and the clerk of the affected municipalities.

5. Conclusion

The legal framework of Environmental Impact Analysis as well as Strategic Impact analysis is well developed. Hungary has adopted all relevant international conventions (such as CBD, Espoo, Aarhus) and implemented relevant regulations of European Union. Incorporation of Biodiversity into EIA/SEA requires specific tools and methods to assess impacts on biodiversity that provide relevant and reliable predictions for the EIA process. The integration of biodiversity in the scope of the EIA process is rather recent in Hungary, the implementation of new practices concerning biodiversity is expected.

Part II: Business Measures and Practices to Mitigate Impacts on Biodiversity

1. Measures taken by companies

1.1. Companies accounting their impacts on biodiversity

In order to review and analyze how companies in Hungary account their impacts on biodiversity, we collected environmental reports, sustainability reports and social activity reports published recently on the official website of the KÖVET Association for Sustainable Economies (<http://www.kovet.hu/view/main/160.html>). KÖVET is the Hungarian member organization of the International Network for Environmental Management, the Global Footprint Network and the CSR Europe, and functions as an advisory organization promoting preventive environmental solutions, ensuring information exchange within the business sector, and certifying the environmental performance of companies (EMAS). We aimed to make an interview with expert(s) working at KÖVET whose fields include biodiversity issues as well, but as the organization does not focus directly on nature protection and biodiversity, we could not contact anybody who has more information on this topic. Thus, the following part of the paper is based on the analysis of the company reports (23 altogether) downloaded from the above cited website, and a comprehensive Internet search.

Table 1. Biodiversity issues in environmental and sustainability reports of Hungarian companies

Company	Industry	Type of the report	Year	Impacts on biodiversity	Mitigation	Relevance*
State Motorway Management Co.Ltd.	Construction	Sustainability Report	2006	Motorways go through and divide protected areas and valuable natural (semi-natural) habitats. Traffic contributes to the spread of invasive species and causes light, noise and air pollution.	Fences, over- and underpasses for wild animals (frogs, mammals), planting local species on the benches, financing biodiversity related research activities.	Medium
ATEL Csepel Business	Electricity	Environmental Report	2007	Biodiversity is not mentioned in the text. However, waste water could have a significant effect on the recipient.	Waste water treatment, financial support to environmental education.	High
AUDI	Automotive	Environmental Report	2007	Not mentioned.	Not mentioned.	Medium
BAT	Food processing (tobacco)	Social Report	2004	Biodiversity is mentioned only in relation to the factory's premises.	Not mentioned.	High
Budapest Airport	Air transport	Environmental Report	2006	Biodiversity is mentioned in relation to the airport flora and fauna, especially its birdlife.	Bird saving equipments for avoiding clashes.	Medium
CIB Bank	Financing	Sustainability Report	2007	Not mentioned.	Not mentioned.	Low
Crew	Printing	Short Environmental Report (EMAS)	2006	Not mentioned.	Not mentioned.	Low
Denso	Automotive	Sustainability Report	2003-2004	Biodiversity is mentioned in relation to the factory's location (it lies next to a nature protected area).	Taking part in a local programme called "For the flowered city", supporting a local initiative to launch a monitoring system on the nature protected area.	Medium
Dreher	Food processing (beer)	Environmental Report	1999-2003	Biodiversity is not mentioned, although the report accounts the environmental values of the factory's sites, especially the huge variety of nesting birds.	Nesting boxes were placed by a BirdLife Hungary.	High
Dunapack	Paper	Environmental	2006	Not mentioned.	Not mentioned.	High

* The relevance of biodiversity issues concerning the particular company builds on Grigg (2004), who lists business sectors having the strongest impact biodiversity as follows: food processors, forestry and paper, mining, oil and gas, utilities, electricity, pharmaceuticals and biotechnology, tobacco (ibid p. 110)). Concerning companies working in these sectors biodiversity was given high relevance, while medium relevance was assessed in different sectors still having relatively strong environmental impacts (e.g. construction, transportation, automotive industry, packaging and chemistry), and low relevance was assessed in sectors that have no direct impacts on the natural environment).

Waterworks of Budapest	Utilities	Report Environmental Report	2006	Not mentioned, although Natura2000 and protected areas are managed by the company.	Launching a competition for university students for mapping and illustrating protected species on the Natura2000 sites managed by the company.	High
Holcim	Construction (cement)	Sustainability Report	2005	Not mentioned.	Recultivation.	Medium
KÖVET INEM	Advisory	Short Environmental Report (EMAS)	2006	Not mentioned.	Not mentioned.	Low
Hungarian Post Co.Ltd.	Communication	Environmental Report	2006	Not mentioned.	Not mentioned.	Low
MOL	Oil	Sustainability Report	2007	Biodiversity is not mentioned in the report, but details are given on the company's website. Main impacts on biodiversity are related to new projects launched on protected areas.	A priori identification of local flora and fauna in collaboration with natural scientists and conservationists, re-localization of protected species, follow-up monitoring.	High
Hungarian Power Companies Ltd.	Electricity	Sustainability Report	2006	Biodiversity is mentioned in relation to electric cables crossing national parks and protected areas.	Bird alarm system, nesting boxes, recultivation after placing new electricity cables.	High
OTP Bank	Financing	Social Responsibility Report	2007	Not mentioned.	Not mentioned.	Low
Paks Nuclear Power Plant	Electricity	Environmental Report	2005	Not mentioned.	Not mentioned.	High
Premed Pharma	Pharmacy	Environmental Report	2006	Not mentioned.	Not mentioned.	High
Richter Gedeon	Pharmacy	Environmental Report	2004	Not mentioned.	Not mentioned.	High
T-Com	Communication	Sustainability Report	2006	Biodiversity is mentioned as weakly impacted by the company's activity.	Preferring underground instead of aerial cables, sharing antennas with other companies.	Low
TetraPak	Packaging	Environmental Report	2004	Not mentioned.	Not mentioned.	Medium
TVK	Chemistry	Health, Safety and Envir. Report	2002	Not mentioned.	Not mentioned.	Medium

Table 1. gives a brief overview of the analyzed company reports. From the 23 environmental and sustainability report we read through, only 8 mention biodiversity (labeled with green color), and even in these cases biodiversity appears mostly as a marginal issue (pollution, waste and energy consumption are the most emphasized dimensions of the companies' environmental impacts).

The three most conscious companies, who have at the same time strong impact on biodiversity, are the State Motorway Management Co. Ltd., the Hungarian Power Companies Ltd. and the MOL group; however, some questions still exist concerning their motivation to mitigate their effects on biodiversity. The State Motorway Management Co. Ltd., for example, lists several activities causing the loss of biodiversity and accounts various efforts to mitigate its impact. However, the company is obliged to apply these mitigation measures (e.g. building fences as well as over- and underpasses for wild animals) by law when building new motorways, and in reality, mitigation is limited only these new stages but not the existing motorways. The MOL group (the Hungarian oil and gas company) also accounts – not in the report but on its website – the biodiversity loss caused by constructing new reservoirs and laying down pipes in protected areas. However, the company is obliged to prepare an impact assessment before the construction starts, and in fact, MOL does not mention any other activities as mitigation than the *a priori* identification of endangered species and a follow-up monitoring after relocating them. Thus, these two examples cannot be considered as a conscious and voluntary decision to preserve biodiversity (or at least alleviate the pressures the companies put on the natural environment). The Hungarian Power Companies, whose main impact on biodiversity is the death of protected birds due to clashes with electric cables, have a bit different position. Since ornithologists in Hungary have relatively big influence compared to other environmental NGOs, the loss of biodiversity caused by electronic cables has been a hot topic, and the BirdLife Hungary (member of Birdlife International) has push electricity suppliers to mitigate their impacts for many years. Thanks to this civil movement accompanied by the efforts of the Ministry of Environment and Water, the Hungarian Power Companies Ltd., as well as other suppliers, realized their responsibility and started to invest in bird friendly equipments (we introduce this initiative in more detail in the next section of the report).

Among the 23 company reports we found 10 where biodiversity was not mentioned at all, but the company's activity put significant pressure on the diversity of the surrounding natural environment (marked with orange color in the table). When reading through these reports, we could identify measures mitigating the impacts on biodiversity only in marginal cases. For example, the Waterworks of Budapest manages many Natura 2000 sites as catchment areas without mentioning its role in maintaining or endangering protected species. The only measure which can be assessed as being launched to support biodiversity maintenance relates to environmental education (competition for students to map and illustrate protected species), but does not serve biodiversity protection in a direct way. This phenomenon suggests that the importance of biodiversity is not yet well-known among business enterprises, and that they have difficulties to recognize the mutual relationship between biodiversity and their business activities, even if they publish environmental or sustainability reports regularly. One possible explanation for this can be the nature of business activities: most of the factories are built up in urban environment where natural values have already been degraded; therefore the impact on the diversity of the natural surrounding is hardly identifiable. Another reason can be the general logic of environmental reporting: since waste, pollution and energy consumption are more easily measurable and can be mitigated by technological investments in most of the cases, it seems obvious to analyze the company's activities from this approach and easy to show up some improvement in these data from year to year.

1.2. Measures taken by companies to minimize their impacts on biodiversity

The “Clean Sky Agreement”

The Clean Sky Agreement was signed by the Hungarian electricity suppliers, the Ministry of Environment and Water and the BirdLife Hungary in February 2008 as the first agreement in Europe to mitigate the impact sky cables have on birdlife diversity. As we have already mentioned, the strong role ornithologists have in Hungarian nature conservation contributed to the early recognition of this problem, although for the first time campaigning against electricity suppliers characterized this civil movement instead of cooperation. The current agreement was initiated by Péter Olajos, European Parliament representative of Hungary, who realized that biodiversity loss could be reduced by collaboration more efficiently, since the opposing parties have complementary information and capabilities to solve this problem. After some years of tentative negotiations and one year of professional preparation, the three parties signed this voluntary agreement which defines duties and responsibilities for a long term collaboration with the aim of reducing biodiversity loss caused by electric cables. The Ministry and the Association agreed upon sharing their earlier research results and maps indicating which the most dangerous areas are for birds, additionally they promised to prepare a combined database from this information. Electricity suppliers, on the other hand, offered to start a modernization process which should end in 2020 by making the sky cables bird friendly all over the country. Signatories of the agreement established also a Coordinating Council which is responsible for defining a priority list of the most dangerous areas (this list will serve as the schedule of the modernization process) by delegating one member from each organization.³

One of the first results of this cooperation is the shift from sky to ground cables in the Hortobágy, where the first Hungarian national park was established and which has an extremely rich birdlife. Although this modernization had been accomplished earlier than the agreement was signed, it was a promising result of previous negotiations since it was co-financed by the state and the regional supplier. This would be the ideal way of the cooperation in the long term as well, albeit sometimes it seems difficult to convince companies to cover the costs of modernization. The present behavior of electricity suppliers (they ask for compensation in almost every case of modernization) makes the most probable financial solution be to allocate EU and state funds beside their own contribution. Nevertheless, the future concept of the Ministry is to gradually build the need for sky cable modernization into the legislation and oblige companies to (co-)finance these investments⁴

Small-scale projects to minimize or compensate business impacts on biodiversity

A significant number of medium to large size companies have already had at least one project contributing to biodiversity maintenance or mitigating its negative impacts on biodiversity. The Theodora Mineral Water Ltd. (subsidiary of the Nestlé Waters), for instance, supported the Balaton Uplands National Park Directorate to set up three study trails on one of the most picturesque part of the Uplands, close to the springs where the company’s bottling factory is situated. The first 8 km long study trail (Theodora) was opened in 2004 with a focus on water, while the second 8 km long study trail centered on geology (Kékko) was assigned two years later, together with a 1,1 km long trail (Timetrack) connecting the longer ones. Information boards, small bridges and brochures were prepared, and the company offered to maintain the

³ Source: http://www.termeszetvedelem.hu/user/downloads/hirek/Akadalymentes_megallapodas.pdf and www.kvvm.hu/data/sajtokozlomenyek/104.pdf, 12-10-2008

⁴ Source: interview with Eszter Kovács, Hungarian Ministry of Environment and Water, Office of Nature Conservation, 30-09-2008

study trails in the future, too.⁵ This project can be regarded as a voluntary action to draw attention to the surrounding natural values and the need for biodiversity maintenance in the Uplands. However, some stakeholders argue that the company used this project to restore its local reputation worsened by the supposed relationship between the increasing water extraction and the continuous drying of a nearby lake (lake Kornyí).⁶

Building study trails or taking part in landscape rehabilitation is a popular activity of multinational and national companies, even if the company's headquarters is situated in a faraway city. For example the Hungarian National Bank, situated in Budapest, built a study trail along the Tisza river, while the Knorr-Bremse restored an old Jewish cemetery and cleared the protected area surrounding Zalaszentlőrinc, a small village in Western Hungary. Involving employers in environmental actions has a quite long history in Hungary: one of the first cases where a company's staff helped to restore a valuable environmental area dates back to the 1970ies, when the employees of one of the carbon mines in Ajka (Western Hungary), called Ármin, was involved in the landscape restoration process after closing down the mine. A mining museum and study trails were built by the staff, and a park forest was restored in the surrounding, resulting in a touristic area which is still popular among the town dwellers.⁷ The present form of these activities, although has a strong environmental orientation and a willingness to maintain cultural and biodiversity, serves rather as outdoor trainings organized by specialized HR consultant companies. The central aim of these trainings is to increase the cohesion of the group, while improving the social sensitivity or the environmental consciousness of the staff is a side effect, indeed.⁸

Another typical form of mitigation is to donate environmental NGOs or establish small-scale funding schemes which serve biodiversity maintenance. The MOL Group, for instance, is one of the biggest donors in the country supporting birdlife protection (e.g. habitat protection of the Hungarian great bustard) and environmental restoration (e.g. building parks, park forests). The funding scheme through which the company channels money into nature conservation was developed together with a Hungarian NGO and this civil organization is responsible for managing the process of tendering and monitoring. Although this type of donation serves biodiversity conservation more directly than the outdoor trainings where e.g. study trails are built, the effective impacts the company has on biodiversity are not mitigated at all, but other areas are favored for conservation/restoration.

1.3. The contribution of the business sector to the conservation of biodiversity

Extensive farming on Natura 2000 and other protected areas

A significant proportion of small and medium size agricultural enterprises work on Natura 2000 or other protected areas (national parks or environmentally sensitive areas), therefore these enterprises are either obliged by conservation rules or encouraged by subsidies to apply environmentally friendly cultivation methods. Our previous research experiences show that many of these farms are not only economically interested in biodiversity maintenance, but are conscious about the interrelationships between agricultural and natural processes, and thus preserving (or even improving) biodiversity through their everyday practices is a mission for them. It is interesting to see, however, that environmental consciousness of farmers can stem

⁵ Source: http://www.bfnpi.hu/index.php?pg=sub_514 and <http://www.theodora-info.hu/>, 12-10-2008

⁶ Source: www.niok.hu/download/cegek_tars_szerep.doc, 12-10-2008

⁷ Source: http://www.ajka.hu/main.php?ac=read_article&active_chapter=1&article=48&menu=1, 12-10-2008

⁸ Source: <http://hvg.hu/other/20060905.aspx>, 12-10-2008

from two different sources. Some older farmers who inherited this profession and the love of land from their parents and grandparents still have a strong ecological knowledge that drives them to run their farm in a sustainable way, although they are often marginalized both on the market and in decision making processes. Others, often well-educated and moving out from bigger cities, chose sustainable farming as an alternative (and profitable) solution to unsustainable business activities, and become the “best practices” of pro-biodiversity businesses with a relatively strong voice in nature conservational decisions (e.g. by taking part in the public bodies of national park directorates). In the following paragraphs we introduce two examples of pro-biodiversity SMEs: an animal breeding and a fishery enterprise.

Mr. Szomor⁹ a private entrepreneur has implemented an extensive program for preserving animal genetic diversity embodied in the Hungarian Grey cattle and other native species. The Hungarian Grey cattle were a popular variety in the Carpathian basin in the 14th and 15th centuries. Today, the Hungarian Grey cattle are considered as an important genetic reserve. Mr. Szomor, a horticulture engineer started his entrepreneurial career by establishing a flower horticulture business in 1978. This successful business endeavor also enabled him to invest in his primary hobby. He bought his first animals (six Grey cows and six bull calves) in the late 1970s and by the 1980s he had a herd of twenty one animals. Due to his committed and conscious efforts, by 1994, he had a herd of two thousand cattle. Mr. Szomor managed his land and herd in a way that was in line with the national agri-environmental scheme of Hungary. Because of this, his agricultural practice was filmed and presented for educational purposes all over the country. From 1994 on, Mr. Szomor also undertook another initiative. He started a fish pond development project. It took ten years to develop a 450 hectare connected system of fish ponds, which is managed in a way that benefits migratory bird life and restores the degraded wetlands of the Kiskunság National Park (KNP). Mr. Szomor was awarded by KNP with a “Pro Natura” medal for his continuous and successful efforts to take nature into account in his business activities. Mr. Szomor now operates a limited liability company and a private entrepreneurial business altogether producing 600 million HUF (€2.3m) of annual revenue. He has also established an interconnected complex of farm activities based on the main activities of cattle breeding and fish pond management but supported by other activities, such as pig farming and raising old Hungarian varieties of chicken. His ethos is to effectively do business and gain profit in a way so as not to damage nature conservation.

Mr. Lévai established his own fishery business in 1989 among the first private businesses set up at the time of the regime shift in Hungary. His childhood spent at the riverbank of the Danube influenced his professional career considerably: as a child he went to the Danube regularly for fishing and decided to train himself a professional fisherman even if his parents did not support his choice.¹⁰ Before establishing his own business he worked in state fishery companies where he learned and practiced those intensive fishery management methods which he combines now with “biodiversity friendly” practices in his lakes. His company, Aranyponty (Golden Carp) Ltd., manages recently 760 hectares of surface waters including 12 bigger and 37 smaller lakes in Rétimajor, Western Hungary, but has some smaller lakes as well all around the country.¹¹ Profitability and environmental consciousness are two complementary drivers of his work. When he realized that fishery in itself is not enough to

⁹ Source: a case study prepared by our colleague for educational purposes (Pataki, G. 2008. Biodiversity – Hungary. In: Leonardo da Vinci Agrimarketing Programme. pp.76-80. URL: http://www.agri-marketing.eu/images/stories/Agrimarketing_Case_Studies.pdf, 15-10-2008) based on semi-structured interviews with Mr. Szomor.

¹⁰ Source: <http://www.aranyponty.hu/hu/node>, 15-10-2008

¹¹ Source: <http://www.aranyponty.hu/hu/aranyponty-hirek/media-megjelenes/585>, 10-10-2008

earn a living, he opened towards eco-tourism and retail sales, and opened his lakes for visitors, built a wellness centre and a restaurant, established a fishery museum and engaged in environmental education as well. Nowadays he employs 50 people from the nearby villages, and hosts 11-12 thousand of anglers in an average year. The further direction of his company is to shift to organic fishery and build up the processing chain to sell the organic fish in a ready-to-cook format. Biodiversity maintenance is related to this business through the Natura 2000 network, as the lakes managed by the company are designated to protected areas. Although “the birds and the fisherman are old enemies” – as Mr. Lévai says – biodiversity conservation can be economically viable if combined with eco-tourism and external funds.¹² Thus, Aranypony Ltd. puts great emphasis on maintaining the diversity of the fauna and flora of the managed area, preserves one of the most valuable sets of genetic stock of indigenous tree species (e.g. black poplar or willow), develops a management system that takes care on nesting and migratory birds and establishes cooperation with national level nature conservationist NGOs. The good relationship between the company and conservationists is indicated by the several prizes Mr. Lévai received recently, and that the BirdLife Hungary offered to introduce this company in the country report as one of the best practices.

Business and biodiversity initiatives in the forestry sector

The forestry sector, similarly to agricultural enterprises, has made significant efforts to combine biodiversity maintenance with profitable business activities. In the following paragraphs we introduce two companies – one which shifted from conventional forest management practices to the more environmental friendly Pro Sylva method and one which is engaged in the restoration of native species rich forests as a tool for reaching the Kyoto goals through carbon trading – as best practices in the forestry sector to make business from biodiversity maintenance in a sustainable way.

The Pilis Forestry Ltd.¹³ was established in 1969 as a state owned forestry company. Nowadays it works as a publicly owned private company (it is responsible to the State Asset Management Company but it works as an independent profit centre) and manages over 65,000 hectares of deciduous forests close to Budapest, over the Budai, the Pilis and the Vértes mountains. Dominant tree species are oak, Turkey oak, beech and black locust. The majority of the forests managed by the company are under nature protection: 60% of the total area belongs to the Duna-Ipoly National Park. Nature conservation rules established by the national park directorate on one hand, and the strong public opinion on the other hand drive the activities of the forestry firm. As its forests are popular touristic areas, the company has to fulfill the broader social claims the city dwellers raise, such as places for sports, outdoor leisure activities, environmental education and recreation in general, beside the traditional products the forest can offer (e.g. timber, renewable energy). Thus, most of the forests managed by the company are older than the economically desirable state (sometimes even “overkept” as our interviewee said) and are cultivated according to the Pro Sylva method. This environmental friendly method builds on gradual (almost one by one) extraction of timber and natural succession, and allows a much greater diversity of flora than the conventional cultivation process with clear cutting. Cutting is often limited to unhealthy or dead trees and always uses environmental friendly machinery (e.g. Timber Jack). This method is not as profitable as the conventional one, since the quality of the timber is quite low, and the company is not able to produce huge quantity of timber at one time. However, the advantage of the Pro Sylva method is that it can be used flexibly in areas having both high or

¹² Source: <http://www.aranypony.hu/hu/aranypony-hirek/media-megjelenes/585>, 10-10-2008

¹³ Source: previous interview with the managing director of the company and the company’s website www.parkerdo.hu, 12-10-2008

low forestry potential and the costs of plantation is much lower in this case, while the loss of the profit can be replaced by revenues from tourism, hunting or the increased demand for firewood. As the company's website (www.parkerdo.hu) proves, the Pilis Forestry Ltd. works in an environmentally conscious way, and has the intention of contributing to biodiversity maintenance in the area. Public communication campaigns, environmental education programmes and popularizing brochures on the Pro Sylva method are complementary tools to make the company's work more transparent and increase the environmental consciousness of the visitors of its forests.

Klímafa Ltd. is a Hungarian based eco-restoration firm dedicated to large-scale afforestation and reforestation projects in the European Union. The company was established in 2006 by the Planktos Inc. (USA) managed by a Hungarian man, who has become the full owner of Klímafa by now. The company's main activity is climate forest plantation and carbon trading; however, it has just finished the plans and some preparatory tasks of a pilot project to illustrate how a restored climate forest functions. The main advantage of the company's activity concerning biodiversity is that it offers to plant richly variegated forests containing native species, which contributes to an increased biodiversity in both animal and plant species. Klímafa's website justifies its future role in biodiversity maintenance as follows:

“As the forests grow, root systems will expand and reduce soil erosion, the canopy will expand and provide shelter, and leaves and branches will fall and increase the nutrient content of the soil. All of this will contribute to an environment in which plants can thrive. Animals will also migrate to these forests because of the available food, habitats, and protection they provide.”

http://www.klimafa.com/index.php?option=com_content&task=view&id=17&Itemid=31, 12-10-2008

A recent PR action has made the company well-known in the country and in the region: Klímafa offered last year the Vatican the first forest restored in Hungary for free as a tool to compensate the CO₂ emission of the Holy See.¹⁴ Although the Vatican accepted the donation and the company initiated a collaborative research with the Institute of Ecology and Botany of the Hungarian Academy of Sciences, the pilot project is still in a preparatory phase (tree species have been ordered and the area have been designated) and there are still some contradictory local information about the project. Inhabitants of the village where the forest will be placed do not know about the project and even local decision makers get information only from the mass media.¹⁵ Despite the critics forest ecologists raise against climate forests and the controversies existing in the local community, the future perspectives of Klímafa are promising, since carbon trade seems a continuously growing market with outstanding profit prospects for those who can invest in land acquisition and forest plantation.

2. Business & Biodiversity initiatives in Hungary

2.1. Biodiversity Business Technical Assistance Unit¹⁶

The Biodiversity Business Technical Assistance Unit is run by the BirdLife Hungary (MME) in the framework of an EU funded project. The three years long project started in 2007 and supports NGOs in three different countries (Hungary, Poland and Bulgaria) to develop nature conservationist credit facilities. The idea of providing credits with better conditions to those

¹⁴ Source: <http://www.iht.com/articles/2007/09/03/business/carbon.php?page=1>, 12-10-2008

¹⁵ Source: personal communication with local stakeholders (mayor, leader of a local rural development NGO)

¹⁶ Source: interviews with Eszter Kovács (Hungarian Ministry of Environment and Water), and Dénes Nagy (BirdLife Hungary, earlier manager of the project)

who contribute to biodiversity maintenance in their everyday work has a Hungarian origin: in 2005-2006 the Ministry of Environment and Water and the ECNC together with a Hungarian commercial bank (MFB) decided to develop special credit facilities for small and medium size enterprises focusing on biodiversity. However, this initial project ended without tangible results – a potential credit facility was elaborated, but was not launched into the market due to the lack of state guarantee behind the credits claimed by the bank. The overall aim of the present project is to work out updated credit facilities and to set up an assistance model which helps to identify an SME's capacity to maintain biodiversity and offers it the best credit options based on its biodiversity and business data. In this way the project intends to complement the Natura 2000 funding scheme.

The target group of the project contains SMEs working in agriculture or tourism. However, those who are really interested in such kind of financial products are limited mainly to medium size SMEs as smaller ones do not have the willingness to get credits, while bigger ones have enough capital to be reluctant of this kind of financial solutions. This year the project focuses on three different types of producers: animal breeders (managing grasslands) because this is the only sector where Natura 2000 specifications have already exist; fisheries as this is a relatively small and easily handling segment; and finally vine growers because viniculture has huge processing requirements which can drive the assistance unit to new target groups (processors) in the future. At this moment the assistance unit cooperates only with a few numbers of SMEs who were contacted first with a survey but whose personal relationship to the MME goes back to many years. In the future the assistance unit will launch a top-down process to select and contact potential target enterprises as the first step of labeling and offering them the most suitable credit facilities. The other group of actors involved in the project is the group of commercial banks who take part in the development of the financial service. However, the collaboration with the bank sector is not so smooth: successful cooperation often depends on the personal relationship and the way a bank perceives Natura 2000 subsidies (e.g. as a good possibility to build new products upon it, or a new source of competition).

Recently the Biodiversity Business Technical Assistance Unit is going through a structural reformulation, thus it is not easy to present how it builds up and works in a business as usual scenario. An external financial expert and two colleagues of the BirdLife Hungary are engaged mostly in the project, although other members of the MME take part in the work as well to benefit from the synergies between different ongoing projects. Being “self-subsistent” is one of the most important aims of the assistance unit nowadays, which means the balance of costs and revenues without taking into account financial support from the EU or other organization. A long term business plan is being prepared right now to justify the financial viability of the assistance unit and the possibilities to broaden the target group towards the processing sector (e.g. food or timber processors); however external funds seem to play an important role in the smooth functioning of the organization in the near future.

2.2. CEEweb: Business & Biodiversity Conference

CEEweb is an international network of NGOs in Central and Eastern Europe having its headquarters in Budapest, which has the mission of conserving biodiversity through sustainable development. CEEweb has different working groups linking biodiversity issues to rural development, tourism, policy and the Natura 2000 network, and takes part in policy formulation processes as well as civic campaigns to maintain biodiversity. CEEweb – after recognizing that convincing business people about the importance of nature conservation in their strategic decisions and everyday activities is a significant task – organized a conference

in February 2008 in Budapest to promote good examples on business and biodiversity initiatives.¹⁷ Participants were invited to the conference from the government, the civil and the financial sectors as well as SMEs, and were asked to share their experiences. Presentations were held in the following topics: The role of the Countdown 2010 in linking the business and nature conservation; European initiative to mobilize the business sector to maintain biodiversity; Hungarian experiences on developing nature conservationist credit facilities; Introduction to the BTAU project; Rural development in the Borsodi Mezőség; Nature conservation and ecological horticulture. Presentations were followed by a workshop session organized in three topics: credit facilities, best practices from the business world, and the Hungarian and EU legislation concerning biodiversity. Results of the conference were summarized and shared on the website of the organization (www.ceeweb.org), while the leader of the business and biodiversity working group briefed the suggestions came up during the meeting as follows:

- ⇒ “Solutions are needed to better distribute European funds, thus allowing more effective participation of SMEs in grant programmes;
- ⇒ Incentives (such as state guarantees or fiscal policies) could help the development of credit lines for biodiversity ‘friendly’ SMEs; and
- ⇒ Tools are needed to better assess the biodiversity impacts of biodiversity businesses.

CEEweb will be advocating for such proposals in Brussels. Overall, we were happy to see that stakeholders were enthusiastic and actively participated in the issue.”¹⁸

3. Biodiversity research activities in partnership with the private sector

To map biodiversity research activities realized in partnership with the private and public sector we prepared a short survey asking the main data of co-financed or co-managed research projects going on recently. The survey was sent via e-mail by the help of the Institute of Ecology and Botany (HAS) to leading scientific institutions in Hungary where biodiversity research is conducted. 6 from 72 surveys arrived back, but collaborative research work was identified only in the following three cases.

The impacts of intensive game management on biodiversity in the Lónyai game park (2007-08)

The one year long research was initiated and financed by the Nyírerdo Ltd., a publicly owned private company dealing with forestry. Scientific work was done by the Institute of Botany and Nature Conservation, University of Western Hungary, by the help of the Nyírerdo Ltd. The company took part in the data collection and analysis concerning game management (quantity and quality of games, hunting etc.), and shared these data with the research institute, which analysed the relationship between biodiversity indicators and the company’s data. Results were published in a collaborative report.

Modeling carbon fixation within climate forests (2007- ongoing)

The Institute of Ecology and Botany of the Hungarian Academy of Sciences were asked to initiate a collaborative research project by the Klímafa Ltd., a privately owned company focusing on climate forests and CO₂ trading, to study the carbon fixation capacity of natural

¹⁷ Source: http://www.greenfo.hu/programajanlo/programok_item.php?id=3227, 13-10-2008

¹⁸ Source: <http://www.cbd.int/doc/newsletters/news-biz-2008-04/?articleid=149>, 13-10-2008

forests and climate forests planted in ecological restoration projects, and to build a model which adapts the CO2FIX programme. Beside the modeling exercise, the research institute helps to prepare a case study on the development of the forest reservation situated on the Várhegy, and to develop a methodological recommendation to monitor the biodiversity of restored climate forests. In the beginning of the cooperation the research institute was charged with the research tasks by the company, but later on the two parties prepared a collaborative research plan and submitted a proposal for funding a pilot project in which a climate forest would be planted along the river Tisza (Tiszakeszi). The proposal was successful on the tender, and the project is under preparation now.

“Faunagenesis” – The origin and genesis of the fauna of the Carpathian Basin (2005-07)

This research project was financed by the funding scheme of the Hungarian Research and Technology Office and was realized in strong cooperation between several national park directorates, the Hungarian Natural History Museum, the University of Debrecen and the ÖKO Ltd. as the only business partner. The company was a member of the research consortium, although it was responsible only for a marginal part of the tasks: the dissemination process. All research tasks were accomplished by the public partners, while the company prepared a book and a website, and organized a conference in the topic.

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