

UNIVERSITY OF HELSINKI

Biodiversity and Industry

National Review from Finland

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Abbreviations

| | |
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| BMU | German Federal Environment Ministry |
| CBD | Convention on Biological Diversity |
| CMS | Convention on Migratory Species |
| COP | Conference of Parties |
| CR | Corporate responsibility |
| EC | European Community |
| EIA | Environmental Impact Assessment |
| EMAS | The European Eco-Management and Audit Scheme |
| ENGO | Environmental Non-governmental organization |
| EPBRS | European Platform for Biodiversity Research Strategy |
| ESIA | Environmental and Social Impact Assessment |
| FiBS | Finnish Business & Society ry |
| FSC | Forest Stewardship Council |
| GRI | Global Reporting Initiative |
| GSF | The Guides and Scouts of Finland |
| IBA | Important Bird Areas |
| ICNB | Institute for Nature Conservation and Biodiversity |
| IUCN | International Union for Conservation of Nature |
| METSO | Forest Biodiversity Program for Southern Finland |
| MIPS | Material Input Per Service unit |
| NBSAP | National Biodiversity Strategy and Action Plans |
| OECD | Organization for Economic Cooperation and Development |
| PEFC | Programme for the Endorsement of Forest Certification Schemes |
| RKTL | Game and Fisheries Institute (Riista- ja kalatalouden tutkimuslaitos) |
| RSPB | Royal Society for the Protection of Birds |
| SEA | Strategic Environmental Assessment |
| SLL | The Finnish Association for Nature Conservation (Suomen Luonnonsuojeluliitto) |
| SMBs | Small and medium-sized businesses |
| SYKE | Finnish Environment Institute (Suomen ympäristökeskus) |
| UNDP | United Nations Development Programme |
| WSSD | World Summit on Sustainable Development |
| WWF | World Wildlife Fund |

Introduction

This review discusses how Finnish companies take part to the conservation of biodiversity and is a contribution to the French EPBRS meeting "Biodiversity and Industry" organized in Paris (17-21 November 2008) within the official EU Presidency Program.

The report consists of two parts. First national regulations concerning impact on biodiversity and their implementation are examined (chapter 1). The main emphasis in this report is in the second part (chapters 2 to 4) that focuses on measures taken by companies concerning biodiversity conservation as well as research.

Globally, several meetings have been organized and several initiatives have been developed to mobilize the business community on biodiversity¹. In this context it is important to note that the Portuguese Presidency of the EU Council organized a high level conference on Business and Biodiversity in Lisbon on 12-13 of November 2007. The conference contributed towards confirming the interest of the business community to participate in biodiversity conservation as well as building and EU business and biodiversity initiative.

A background discussion note for the High Level Conference on Business and Biodiversity held in Lisbon highlights that biodiversity can be addressed by a company at four different levels²:

1. **Compliance**

A business focuses its efforts to comply with local and national legislation

2. **Philanthropy**

A business responds to the challenges to biodiversity by making donations to external conservation organizations

3. **Management**

Corporate strategies, policies and operational responses are developed, based on biodiversity assessments to reduce, control and mitigate impacts

4. **Value Creation**

A company fully integrates biodiversity into its business model and develops new business opportunities linked to biodiversity conservation

Companies' compliance with local and national legislation is a wide-ranging subject and it is only touched in chapter 1. It has also been unclear to what degree Finnish companies address biodiversity when it comes to philanthropy, management and value creation (levels 2- 4). At the end of this report, some conclusions are made about the degree of involvement of the companies. The results of this review can be regarded only as indicative.

Priority in the Finnish review has been given to large companies³. In order to get most recent and reliable information altogether 19 Finnish companies were contacted by e-mails. Mainly four criteria were used to choose these companies. The criteria are based on relatively broad categories that IUCN uses to classify companies⁴. Emphasis has been given to the three foremost listed criteria:

¹ See more closely UN Doc. UNEP/CBD/COP/9/21/Add.1

² Background discussion note for workshop A: Biodiversity-related responsibility schemes. Located at the Conference website: <http://countdown2010.net/business> (visited 30.9.2008)

³ Some of the companies (e.g. Nokia Corporation) are in fact multinational companies, but to simplify things they have been cited as Finnish companies, since they originate from Finland and their headquarters are often located in Finland.

⁴ http://www.iucn.org/about/work/programmes/business/bbp_our_work/index.cfm (visited 30.9.2008)

1. Biodiversity-dependent industries

This includes sectors that use and entirely depend on products and services from nature. Companies that were contacted include three forestry companies (Metsäliitto Group, Stora Enso Oyj and UPM-Kymmene) as well as one peat industry company (Vapo Group).

2. Large footprint industries

Companies that have large impacts on biodiversity through their operations and processes (e.g. mining, transport and energy). The following nine companies were contacted: Metso corporation, VR-Group, Finnair Group, Nokia Corporation, Fortum, Outokumpu, Pöyry Group, Wärtsilä Corporation and Rautaruukki.

3. Biodiversity finance

Banks and insurance companies that have vast amounts of resources for supporting projects that conserve biodiversity. Four banks/insurance companies were contacted: Sampo Group, Bank of Åland, Tapiola Group and Pohjola Group.

4. Developing green enterprises

Businesses whose activities lead to conservation benefits. No developing green enterprises were contacted.

5. Other companies

In addition two retail trade companies were contacted: Tradeka and Kesko.

A list of all the companies, including details of their activities, can be found in annex 1. The companies that were contacted do not necessarily include all the largest companies in Finland. Several medium-sized companies were also contacted. In general, small and medium-sized businesses (SMBs) receive relatively little attention in this review. It was necessary to limit the study mainly on large companies, since there are 250 378 (2006) companies registered in Finland⁵. The enquiries were primarily addressed directly to the spokesperson of environmental affairs.

The enquiry consisted of four short questions that relates to the issues covered in this review. The questions are listed in annex 2. Altogether 13 (68 %) of all companies that were contacted answered the enquiry. This is a relatively high ratio and, indeed, means that companies do not consider biodiversity issues lightly. The highest ratio of answers came from biodiversity-dependent industries.

Also internet research was conducted to compile this review. Most companies put online information about their activities to support conservation and sustainable use of biodiversity. Special attention has been given to corporate responsibility (CR) reports. Websites of several ENGOs (i.e. WWF Finland, BirdLife Finland) that have initiatives to involve companies in conservation or sustainable use of biodiversity have been utilized.

⁵ Information provided by Statistics Finland. Available at: http://www.tilastokeskus.fi/til/syr/2006/syr_2006_2007-11-29_tie_001.html (visited 30.9.2008)

1 National biodiversity regulations

As instructed, we will first briefly address Finnish biodiversity regulations.

1.1 Biodiversity impact assessments

The Convention on Biological Diversity (CBD), the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention), and the Convention on Migratory Species (CMS) require that EIA (environmental impact assessment) is applied on projects and SEA (strategic environmental assessment) on policies, plans and programs with potential negative impacts on biodiversity. Finland is a party to all three conventions.

In the European Community (EC), the EIA Directive 85/337/EEC, as amended by 97/11/EC and 2003/35/EC, requires that certain projects and activities need to be assessed for likely environmental effects (commonly known as environmental impact assessment, EIA) before planning permission can be granted. The EIA Directive is implemented in Finland through the EIA Act (468/1994) and the EIA Decree (713/2006). In the Finnish EIA legislation the term ‘environmental impact’ is understood as direct or indirect impacts of projects on soil, water, air, vegetation, organisms and biodiversity⁶. Hence, the Act is intended to minimize impacts on biodiversity beforehand. The EIA Decree provides a detailed list of all projects that need to be assessed⁷. These include:

1. Animal husbandry
2. The extraction and processing of natural resources
3. Hydraulic engineering and regulation of waterflow
4. Metal industry
5. Forest industry
6. Chemical industry and manufacturing of mineral products
7. Energy production
8. The transmission and storage of energy and materials
9. Transport
10. Water management
11. Waste management

A detailed list of all projects to which the EIA procedure shall be applied under section 4(1) of the EIA Act can be found from annex 3.

Strategic Environmental Assessments (SEA) involves assessment of the likely significant environmental effects of plans and programs prior to their adoption. SEA Directive (2001/42/EC) was adopted on 27 June 2001 and took effect in Member States on 21 July 2004. The Finnish SEA Act took effect on 1 June 2005. According to the SEA Act authorities have the obligation to assess likely direct or indirect impacts of plans and programs on soil, waters, air, vegetation and biodiversity⁸.

⁶ (468/1994) 2.1 §

⁷ (713/2006) 6 §

⁸ (200/2005) 2.2 §

The most important legislation controlling land use, spatial planning and construction in Finland is contained in the Land Use and Building Act (132/1999, as amended by 222/2003), which came into force in 2000. According to the Act the objective in land use planning is to promote through interactive planning and sufficient assessment of impact, inter alia, biological diversity and other natural values as well as provident use of natural resources⁹. More detailed regulations and controls on land use and construction are included in the Land Use and Building Decree (895/1999). Impact assessment in connection with planning need to take into consideration, inter alia, impacts on plants and animals, biodiversity and natural resources¹⁰.

1.2 Mitigation/compensation for biodiversity impacts

The Environmental Protection Act (86/2000) obliges all businesses operating in Finland to be sufficiently aware of the environmental impacts and risks of their activities – and of opportunities to reduce these impacts and risks. All businesses that conduct activities associated with the risk of pollution are obliged to obtain environmental permits under the Environmental Protection Act¹¹.

The most important Act on compensation for environmental impacts is the Act on Compensation for Environmental Damage (737/1994) that entered into force in 1995. Compensation is paid for a loss defined as an environmental damage¹². Damages that are compensated include, inter alia, injuries, material and economical damages. Compensation is paid according to damages that can be estimated in money, but not e.g. in the decrease of biodiversity.

In general, markets for biodiversity are poorly developed in Finland (Naskali et al. 2006), and there exists no mitigation banking functions. The best example of using economical incentives in the sphere of biodiversity politics comes from the Forest Biodiversity Program for Southern Finland (METSO –program)¹³. New voluntary instruments for protecting forests were tested by private forest owners during the pilot phase (2003–2007). The pilot, in deed, showed that the most effective way to preserve biodiversity is to get forest-owners committed to conservation on a voluntary basis. The results of the program were good and a second phase (2008–2016) has been initiated. The METSO –program is coordinated by the Ministry of Agriculture and Forestry and the Ministry of the Environment of Finland.

1.3 Implementation of regulations

The regional environmental centers¹⁴ supervise and control the implementation of the EIA Act in their sphere of authority¹⁵. If a project that requires environmental impact assessment is began before permission is granted the regional environmental center can suspend the project by imposing a fine until the impact assessment procedure is carried out¹⁶.

⁹ (132/1999) 5.4 §

¹⁰ (893/1999) 1 §

¹¹ (86/2000) 28 §

¹² (737/1994) 1 §

¹³ More information from the website of the METSO –program: <http://wwwb.mmm.fi/metso/international/>

¹⁴ There are 13 regional environmental centers in Finland. More information can be found from the website of the Finnish environmental administration: <http://www.ymparisto.fi/default.asp?node=4661&lan=en> (visited 20.10.2008)

¹⁵ (468/1994) 16 §

¹⁶ (468/1994) 18 §

The Finnish Environment Institute (SYKE) has evaluated Finnish biodiversity impact assessment practices in 38 projects carried out during 1995- 2001. All the reviewed impact assessments were carried out for the type of projects that usually cause the most severe impacts on biodiversity. The results demonstrate a number of shortcomings in ecological impact assessment practices in Finland. The most severe shortcomings are too few new surveys, weak connection between baseline studies and impact prediction, and neglect of indirect and cumulative impacts on biodiversity. Also the consideration of biodiversity components was only partial, since in most cases only effects on most obvious components of biodiversity (plants and large animals) were evaluated. Proposals for monitoring program were proposed, but were very vague. In addition, it was found out that the majority of the assessment reports did not present the results of the assessment explicitly and adequately, which implies their use in decision making in constantly disregarded. (Söderman 2005)

1.4 Managing impact evaluations

The party responsible for a development project – usually a private company or a local authority – is in a central role in the EIA procedure. In Finland the party responsible has to pay all expenses as well as execute the impact assessments. In practice, usually a consultancy is hired to carry out the environmental impact assessments. Consultancies that are experienced in this field include, inter alia, Ramboll and Pöyry Environment Oy.

2 Measures taken by companies concerning biodiversity conservation

This chapter looks first at how companies report on their impacts on biodiversity. Main measures taken to minimize their impacts on biodiversity are covered in subchapter 2.2. The last subchapter (2.3) deals with actions that companies have taken to conserve biodiversity. As instructed, information is organized in tables in each subchapter.

2.1 Accounting of biodiversity impacts

Schemes that help a company to communicate its sustainability performance have proliferated. Non-financial, sustainability reporting is a way for companies to communicate their commitment, strategy and sustainability performance to interested parties. Responsibility schemes are generally non-legally binding in nature. (IUCN & ICNB 2008)

The Global Reporting Initiative (GRI)¹⁷ promotes and develops a voluntary standardized approach to sustainability reporting (IUCN & ICNB 2008). The GRI guidelines were revised in 2006 and the new format (known as G3) consists of 70 performance indicators that are classified in economic, environmental and social categories. Five performance indicators dealing with biodiversity issues can be found and these include two core (EN11- 12) and three (EN13- 15) additional indicators:

- EN11** Information on location and size of land owned in protected areas or areas of high biodiversity outside protected areas
- EN12** Descriptions of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity outside protected areas
- EN13** Habitats protected or restored
- EN14** Strategies for managing impacts on biodiversity
- EN15** Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations

The European Eco-Management and Audit Scheme (EMAS)¹⁸ is a voluntary initiative designed to improve companies' environmental performance. It is a requirement of the scheme that participating organizations regularly produce a public environmental statement that reports on their environmental performance.

The UN Global Compact¹⁹ promotes companies reporting in the format of a Communication on Progress (COP). A COP report describes the company's implementation of the Compact's 'ten universally accepted principles'. Principles 7-9 relate to the environment – they can be applied to biodiversity but do not specifically mention it²⁰.

Table 1 describes how Finnish companies report on their impacts on biodiversity. Main emphasis is given to annual reports and sustainability reports as well as EMAS reports.

¹⁷ More information from can be found from the GRI website: www.globalreporting.org (visited 15.10.2008)

¹⁸ More information can be found from the EMAS website: http://ec.europa.eu/environment/emas/index_en.htm

¹⁹ The website of the UN Global Compact: <http://www.unglobalcompact.org> (visited 30.8.2008)

²⁰ Principle 7: businesses should support a precautionary approach to environmental challenges

Principle 8: undertake initiatives to promote greater environmental responsibility

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Table 1. Companies reporting on biodiversity impacts.

| Company | Accounting of biodiversity impacts |
|--------------------------------|---|
| Metsäliitto Group | <p>Annual report Metsäliitto supports the UN Global Compact and reports using the voluntary GRI reporting framework. Information on several biodiversity indicators (EN11, EN12 and EN 14) is available.</p> |
| Stora Enso Oyj | <p>Annual report Stora Enso supports the Global Compact and reports on biodiversity issues in its annual report (2007).</p> <p>Environmental statement The environmental impacts of Stora Enso Wood Supply's operations and have been prepared in line with EMAS regulation.</p> <p>Sustainability news (three times a year) Biodiversity-related articles are often published online.</p> |
| UPM-Kymmene Corporation | <p>Environmental report Since 2007 UPM's paper and pulp mills publish a joint environmental report. For most of UPM's European mills the environmental statement has been verified according to the EMAS scheme.</p> <p>Annual report UPM is committed to the UN Global Compact. Biodiversity issues are also covered in the annual report 2007.</p> <p>Sustainable forestry website UPM's Sustainable Forestry Minisite (www.upm-kymmene.com/sustainableforestry) has a large section dedicated to biodiversity issues.</p> <p>Reporting to the CBD UPM also reports to the following CBD COP10 meeting in Japan (2010) having signed Germany's Business and Biodiversity initiative in Bonn at the COP9 in May 2008.</p> |
| VAPO Group | <p>Corporate social responsibility report 2007 VAPO reports using the voluntary GRI reporting framework. Industrial peat production requires an environmental permit and impact monitoring. For peat areas larger than 150 hectares, an environmental impact assessment (EIA) is always performed to assess biodiversity impacts</p> |
| Finnair Group | <p>Annual report Biodiversity issues are not communicated in the annual report.</p> <p>Environmental report Biodiversity issues are not communicated in the environmental report.</p> |
| Fortum | <p>Sustainability website Fortum reports using the voluntary GRI reporting framework. Fortum has a website on sustainable development (www.fortum.com/sustainability) and it is based on the GRI G3 indicators when applicable. Information about the on the biodiversity indicators is not available. Although impacts on biodiversity are not communicated systematically, a lot of information has accumulated from single projects and operations that are linked to biodiversity. This information is scattered in different reports and files.</p> |

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| METSO Corporation | <p>Sustainability report MESTO supports the Global Compact and reports using the voluntary GRI reporting framework. Information on biodiversity indicators is not available.</p> <p>Sustainability website METSO has a sustainability website: www.metso.com/sustainability</p> |
| Neste Oil | <p>Annual report Biodiversity issues are not communicated in the annual report.</p> |
| Nokia Corporation | <p>CR report Nokia is committed to the UN Global Compact and reports using the voluntary GRI reporting framework. Information on indicators EN13 and EN14 is available.</p> <p>Environment website Nokia has website with environment-related information: www.nokia.com/environment</p> |
| Outokumpu | <p>CR report Outokumpu reports using the GRI reporting framework. Information is available on biodiversity issues in the 2007 report.</p> |
| Pöyry Group | <p>Annual report Biodiversity issues are not communicated in the annual report.</p> |
| Rautaruukki | <p>CR report Rautaruukki reports using the voluntary GRI reporting framework. Information is not available on biodiversity indicators.</p> |
| VR Group | <p>CR report VR reports using the voluntary GRI reporting framework. Information is not available on biodiversity indicators.</p> |
| Wärtsilä Corporation | <p>Annual report Wärtsilä reports using the voluntary GRI reporting framework. Information on indicator EN11 is available.</p> |
| OP-Pohjola Group | <p>CR report OP-Pohjola Group aims to comply with GRI reporting framework. Biodiversity issues are not covered in the responsibility report.</p> |
| Sampo Group | <p>Annual report Biodiversity issues are not communicated in the annual report.</p> |
| Tapiola Group | <p>Annual report The annual report 2007 is based on the voluntary GRI reporting framework. Information on the biodiversity indicators (EN11, EN12, EN13 and EN14) is available.</p> |
| Bank of Åland | <p>Annual report Biodiversity issues are not communicated in the annual report.</p> |
| KESKO | <p>Annual report Kesko supports the Global Compact and reports on environmental responsibility in it's annual report (2007). The chapters on "responsible purchasing" and "responsibility in product trade" are linked to biodiversity.</p> |
| Tradeka | <p>Annual report Biodiversity issues are not communicated in the annual report.</p> |

2.2 Main measures to minimize impacts on biodiversity

This subchapter highlights the main measures taken by companies to minimize impacts on biodiversity (table 2). Issues related to improving eco-efficiency (recycling, energy efficiency etc.) are in general not included in the table. Main emphasis is given to measures that directly minimize impact on biodiversity.

Table 2. Main measures taken by companies to minimize the impacts on biodiversity.

| Company | Measures to minimize impacts on biodiversity |
|--------------------------|--|
| Metsäliitto Group | <p><i>Environmental program</i> In 2007, the objectives of Metsäliitto’s environmental program included increasing the number of retention trees and improving their quality at logging sites located in Finland as well as protecting environments that are valuable for the biodiversity of nature in all wood supply areas. In the 2008 environmental program more attention will be paid to the protection of waterways.</p> <p><i>Forest certification</i>²¹ Metsäliitto Group supports forest certification and aims to increase the share of certified wood in its products and to introduce more products bearing certification labels to the market. Most of the wood supplied by Metsäliitto comes from forests certified according to PEFC. In 2007, about 76 per cent of the wood supplied by Metsäliitto to the Group’s mills originated from certified forests. Metsäliitto has also actively promoted the introduction of forest certification in Russia, for example by participating in the creation of a national PEFC standard for Russia.</p> <p><i>Wood origin tracking system</i> Metsäliitto Wood Supply’s certified quality and environmental management systems include a wood origin tracking system. This makes it possible for Metsäliitto to trace the origin of the wood supplied, whether it comes from a certified forest or not. The tracing system is an effective measure to prevent the use of wood from conservation areas.</p> <p><i>Auditing of wood suppliers and production sites</i> Wood suppliers as well as its own logging sites and those of its subcontractors are audited regularly. In logging site audits, Metsäliitto checks whether wood harvesting has been carried out in line with the conditions indicated in the logging license. Attention is also paid to the quality of the management of the forest environment. Metsäliitto also audits all of its wood suppliers in Russia.</p> <p><i>Environmental training</i> Metsäliitto organizes environmental training in all wood supplying countries. In 2007, environmental training reached some 250 employees and other important stakeholders.</p> |
| Stora Enso Oyj | <p><i>Forest certification</i> Stora Enso promotes forest management certification, and is working to increase the amount of wood originating from certified forests. In 2007, 61% (55%) of purchased wood came from certified forests. Stora Enso is helping to increase the amount of</p> |

²¹ Forest certification is an important measure for forest companies to point out that forests are managed sustainably. Certification requires the statement from an independent surveyor that the use and management of forest fulfill certain ecological, social and economical standards. In Finland 95 % of the forests are certified by according to the PEFC (Program for the Endorsement of Forest Certification schemes) certification system.

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| | <p>certified forests in Russia; in December 2006, certification of 400.000 hectares of leased forest area in northwest Russia was completed. Veracel's plantations in Brazil are also currently being FSC certified. In addition, Stora Enso is also actively participating in the development of FSC forest certification in China, and Stora Enso's plantations are being used as a pilot site by China's National Forest Certification scheme.</p> <p>Wood origin tracking system Thanks to Stora Enso's traceability systems, the origin of all purchased wood is known, even if it is uncertified.</p> |
| <p>UPM-Kymmene Corporation</p> | <p>Global biodiversity program UPM has developed a global biodiversity program for company forests in four countries: Finland, UK, Canada and the United States. The program aims to maintain and increase biodiversity in forests as well as promote best practices in sustainable forestry. The program identifies six key elements (native tree species, deadwood, valuable habitats, forest structure, water resources and natural forest) that are important for forest biodiversity. A global target has been set for each key element and these will be implemented through country level targets and local action plans. The first period of the program started in 2007 and lasts for five years. It includes biodiversity training for staff, development of monitoring systems and biodiversity research through specific projects (see chapters 2.3 and 4.1).</p> <p>Auditing of wood suppliers and production sites UPM carries out regularly supplier audits and logging site checks to verify the accuracy of the information provided and that the operations meet UPM's requirements.</p> <p>Forest certification UPM promotes a global increase in the use of certified wood and supports different credible forest certification schemes. All of UPM's own forests are certified and the company is committed to several national and international certification standards. About 71% (65%) of all wood used in UPM's mills comes from certified forests. In 2004, a parallel field test of seven forest certification standards was carried out in forests managed by UPM in Canada, Finland and the UK. The field test covered 35,000 hectares of forests and selected key subject areas that would be most significant in their impacts and hence would best illustrate the differences between the standards.</p> <p>UPM Chain of Custody The Chain of Custody system is a tool to ensure wood is coming from sustainable and legal sources. UPM's own Generic Chain of Custody model allows UPM to demonstrate the actual share of certified wood and fiber in its products. In 2007, UPM's Forestry and Wood Sourcing organization in Russia gained FSC-certified Chain of Custody.</p> <p>Wood origin tracking system UPM has developed an award winning tracing system for wood in Russia and the Baltic countries which requires that all deliveries must be accompanied by statement of origin showing a map grid reference for the location of the logging area²². UPM recently participated in a project between WWF Latvia and the World Business Council for Sustainable Development which looked at developing best wood tracking practices in order to verify legality of wood origin in Latvia.</p> |
| <p>Fortum</p> | <p>Prestudy: how to reduce impacts of hydroelectric power production In 2008, Fortum initiated a prestudy to identify what kind of research is needed to reduce the impacts of hydroelectric power production on biodiversity. The study also intends to answer how already existing knowledge can be utilized more efficiently.</p> |

²² More information from the Tracing Russian Wood website: www.upm-kymmene.com/traceit (visited 18.10.2008).

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| | <p><i>Complying with voluntary guidelines</i> To reduce the negative impacts on aquatic ecosystems Fortum complies with voluntary directions (based on research results) for keeping the water levels within certain limits.</p> |
| METSO Corporation | <p><i>Improving eco-efficiency and environmental reporting</i> Environmental performance is improved continuously through development efforts, by increasing energy and material efficiency, producing less emissions and waste, and by reducing the use of hazardous materials. This has indirect effects on biodiversity.</p> |
| Neste Oil | <p><i>Improving maritime safety in the Baltic Sea</i> Neste Oil has implemented measures to improve maritime safety in the Baltic Sea. A good example is the escort-towing tugboats of the company, which are used to tow tankers into ports. This was a voluntary measure that WWF has required as an obligatory safety-measure for all the ports in the Baltic Sea to decrease the risk of an oil accident.</p> <p><i>Traceability of biofuels</i> Systems have been developed so that the palm oil that Neste oil uses for making biofuels is 100 % traceable.</p> |
| Nokia Corporation | <p><i>Voluntary environmental impact assessments for new sites</i> Nokia has made a decision to make internal EIA for our new factories even if it is not required by the local law.</p> |
| Outokumpu | <p><i>Reviving production sites and carrying out regular impact evaluations</i> Outokumpu has recovered areas once utilized by production operations to their natural state. At the Kemi mine, an area of 20 hectares was landscaped and reforested during 2007. Outokumpu closed two production sites in 2006, one in Sheffield, Britain (30 hectares) and the other in Sorsakoski, Finland (5 hectares). Outokumpu has initiated site restoration in these locations in accordance with local regulations. In addition, impacts on biodiversity at production sites are evaluated regularly.</p> |
| Pöyry Group | <p><i>Pöyry Environment Oy</i> Pöyry Environment Oy is one of Finland's largest and most experienced consultancies. Environmental impact assessment consultations and environmental research are carried out frequently. Currently there are approximately 300 employees.</p> |
| Rautaruukki | <p><i>Improving eco-efficiency</i> Environmental performance is improved continuously by increasing energy and material efficiency and producing less emissions and waste. The aim is to reduce the volume of material for sorting and to make maximum use of the different recyclable raw materials and slag products. This has indirect effects on biodiversity.</p> |
| VR Group | <p><i>Improving eco-efficiency</i> VR has committed, inter alia, to halve carbon dioxide emissions and to reduce energy consumption per passenger by 20% over the next five years.</p> |
| Wärtsilä Corporation | <p><i>Improving eco-efficiency</i> Wärtsilä gives heavy priority to developing and applying technology with the aim of reducing the environmental impacts of its products.</p> |
| KESKO | <p><i>Changes in product selection</i> In 2007, KESKO food offered a selection of about 550 organic products. In April 2007 the K-food stores' own coffee brand, Costa Rica, was replaced by the UTZ certified Pirkka Costa Rica. The new coffee soon became the most bought responsibly coffee in Finland. The UTZ certification is based on complying with the demanding Code of Conduct, which includes both environmental and social aspects.</p> |

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| | <p><i>Sourcing policy for timber</i> The garden furniture sold by all K-Group stores is either FSC-certified or made of cultivated tropical wood species. The proportion of FSC-certified timber out of all timber sales was around 90 %, while tropical wood and timber accounted for fewer than 2 % of total sales.</p> <p><i>Sourcing policy for fishing (under development)</i> KESKO has renounced the use of two threatened fish species. In addition, the use of the threatened Baltic Sea cod has been replaced with the Barents Sea cod. Currently a comprehensive sourcing policy for fishing is under development and will be published during 2008.</p> <p><i>Sourcing policy for palm oil (under consideration)</i> There are plans to introduce a sourcing policy for palm oil, which will have indirect effects on biodiversity.</p> |
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2.3 Activities that contribute to the conservation of biodiversity

This subchapter highlights the activities of Finnish companies that contribute to the conservation of biodiversity. The activities are listed in table 3.

Table 3. Activities taken by companies in order to conserve biodiversity.

| Company | Activities to conserve biodiversity |
|--------------------------|--|
| Metsäliitto Group | <p><i>Support for the METSO program</i> Metsäliitto supports the Forest Biodiversity Program for Southern Finland (METSO).</p> <p><i>Mapping valuable biodiversity areas in Podporozhye area, Russia</i> Metsäliitto has launched a pilot project to map valuable biodiversity areas in forests leased by Metsäliitto in the Podporozhye area. By doing this work Metsäliitto has acted as a pioneer in biodiversity issues.</p> |
| Stora Enso Oyj | <p><i>Sustainability action plan in China (in partnership with UNDP)</i> Stora Enso prepared a sustainability action plan after having established plantations in Southern China in 2002. A key element of the plan was the commissioning of Environmental and Social Impact Assessment (ESIA) on the plantation project. UNDP independently conducted the ESIA in Guangxi. The ESIA was published in 2006, identifying key areas for improvement and thus forming the basis for the project's sustainability agenda. Sustainability work during 2007 focused on four areas: community development and engagement, supply chain development, biodiversity conservation and sustainability management.</p> <p><i>Project: a network of rural telecenters in China</i> During 2007 Stora Enso worked to establish a network of rural telecentres in cooperation with UNDP China, China's Ministry of Science and Technology and the local authorities. These telecentres aim to improve livelihoods by giving farmers access to information on markets or better farming or forestry practices. Telecentres are also used to spread information, inter alia, on biodiversity conservation.</p> <p><i>Saving valleys for conservation in Southern Bahia, Brazil</i> Stora Enso's joint venture company Veracel located in southern Bahia has declared that</p> |

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| | <p>its plantations will only occupy half of the lands it has acquired. Veracel has a plantation setup where only flat areas are planted and the original vegetation is allowed to regenerate naturally in valleys. In addition, each year steps are taken by Veracel to commence restoration of some 400 ha of local rainforest, helping conserve biodiversity.</p> <p>ESIAs for plantations in Southern Brazil and Uruguay Stora Enso has two ongoing plantation projects in the southern Brazilian state of Rio Grande do Sul and the central regions of Uruguay. In early 2007, Stora Enso initiated an ESIA in both regions. The ESIA's and the new management systems will particularly facilitate effective measures to address and monitor issues related to biodiversity, water protection and soil conservation.</p> <p>Cooperation with WWF In 2007, cooperation between Stora Enso and WWF included a number of projects in sustainable forestry, forest certification and the legality of wood, as well as biomass for energy production. Key projects were located in Russia, including the Pskov Model Forest Project and the Vologda Project, in which Stora Enso worked with WWF Russia and a group of experts to analyze Russia's new Forest Code. The project summary provides valuable insight into Russia's current forest sector reform process. Stora Enso also supports WWF Finland's Perintömetsä initiative.</p> |
| <p>UPM-Kymmene Corporation</p> | <p>Donation of land for the Repovesi National Park, Finland UPM promoted the creation of Repovesi National Park in 2002 through a donation of 560 hectares of land to the state of Finland. At the same time the company also applied to voluntarily protect a further 1.400 hectares in the surrounding area which will remain under the company's ownership.</p> <p>Support for the METSO program UPM has promoted METSO goals in its own operations and participated since 2003 in METSO projects. Further it has provided support, ideas and expert knowledge.</p> <p>Project: restoration of peat bogs in Scotland (UK) UPM's mapping system has identified two sites in Scotland as ecologically sensitive and they are protected during forest operations. These sites contain rare species that are dependent on very wet Sphagnum moss lawns. Management decisions that will consider, inter alia, the removal of trees in the restoration of adjacent mires and blocking ditches to help raise water levels.</p> <p>Project: Breathing new life into Longworth (UK) In 2005, UPM started a project to protect the endangered Narrow-leaved Lungwort (<i>Pulmonaria longifolia</i>) in the Bladen Woodlands, near Dorchester. This plant is found only in three counties of England. It is typically associated with ancient woodlands that have been periodically coppiced (increased light conditions allow it to spread). As coppicing declined, so too did this species. UPM has restarted a coppicing regime and the improvement in the lungwort is monitored.</p> <p>Biodiversity awareness website The UPM Forest Life interactive website (www.upmforestlife.com) takes visitors on a walk through UPM's forest in Finland. The website has recently won the Webby Award (known as the "Web Oscar") in the Corporate Communications category.</p> <p>Support for Perintömetsä initiative (WWF Finland) UPM has supported WWF Finland's Perintömetsä initiative from the very beginning and established 12 protected areas in its own forests.</p> |
| <p>VAPO Group</p> | <p>Cooperation WWF Finland WWF works with Vapo on nature-related issues, such as outdoor pursuits, monitoring</p> |

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| | <p>birdlife, cultivation projects, peatland after-use and waste management. The WWF's peat strategy was completed in 2007; a representative of Vapo sat on the working group.</p> <p><i>Own protected area and donation of land for conservation</i> VAPPO has a natural conservation area in Leivonmäki which will be combined with larger areas released from peat production in the region.</p> <p><i>Planting a tree for each new customer</i> In 2007, Vapo planted one tree for each new electricity customer. Some 15.000 birch and pine saplings were planted at Kovalansuo in Mikkeli and Tammasuo in Rautavaara.</p> |
| Finnair Group | <p><i>Support for water protection (in partnership with SLL)</i> Finnair supports the SLL initiative on water protection (Rantaseuranta-hanke). The project works to encourage young scouts in the scouts' organization The Guides and Scouts of Finland (GSF) to collect information on the quality of the shores by filling forms. The information will be compiled and made public in the internet during the autumn months.</p> <p><i>Support to NatureGate²³</i> Finnair has supported NatureGate.</p> |
| Fortum | <p><i>Project: Rehabilitation of Oulujoki</i> Fortum has altogether 11 power plants in Oulujoki. Circumstances for reproduction of migratory fish species have been improved in Oulujoki river.</p> <p><i>1 day event for the conservation of the ringed seal (in partnership with SLL)</i> Fortum has supported the conservation of the threatened ringed seal together with the SLL. During one day in May 2008 fishermen had the possibility give up net fishing and receive a fish trap that does not harm the ringed seal.</p> <p><i>Nature fund</i> In Sweden Fortum finances environmental projects through a nature fund. For example, the river Klarälven has been restored to a natural state (length of 29 km) by bringing back stones that had been moved away during times of timber floating. This has improved the circumstances for reproduction of the local salmon species.</p> <p><i>Project: protection of the white-tailed sea eagle (in partnership with WWF)</i> Fortum and Energiategollisuus ry have specified all the pylons that are popular lookouts for the white-tailed eagle and cause immediate danger for the eagles. Altogether 90 pylons were determined dangerous and they are now being modified so that they do not cause any danger. The project will compile national recommendations for the power-distribution network companies how to reduce danger caused by pylons for white-tailed eagles.</p> |
| METSO Corporation | <p><i>Support for the Naturewatch program (WWF Finland)</i> Environmental education is supported in localities where the company has its factories. Metso Oyj also supports the Naturewatch programs in Malawi and Nepal.</p> |
| Neste Oil | <p><i>Cooperation with WWF</i> The partnership of WWF Finland and Neste Oil includes measures to promote sustainable energy production. Together they are developing the biofuel production of palm oil to make it ecologically, socially and economically sustainable. Neste Oil is also one of the main partners of WWF Finland's Operation Mermaid campaign.</p> |

²³ NatureGate is an innovative internet-portal that allows meaningful studying of Finnish species. The service includes information of plants, birds and butterflies, with multiple pictures of all of them. The species identifying tool allows even identifying of plants. Visit: <http://www.luontoportti.com/suomi/en> (visited 19.10.2008)

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| <p>Nokia Corporation</p> | <p><i>Cooperation with WWF</i> Connect to Protect is an internal web-based learning platform that has been developed with WWF in order to raise environmental awareness among Nokia employees and to provide guidance on adopting an environmentally friendly lifestyle. Nokia's partnership with WWF has helped to organize seminars covering relevant environmental issues. Nokia also supports WWF Finland's Operation Mermaid project in the Baltic Sea, and several other local WWF projects all over the world.</p> <p><i>Support for an 'environmental YouTube' called Connect2earth</i> Nokia has supported connect2earth, an online community that enables young people to upload environment-related videos, pictures and comments. The community also allows people to rank other entries, discuss issues, and share smart ideas and solutions. Each month users vote on a winner who will be rewarded with a Nokia mobile phone. The overall winner, was selected by a panel of prominent conservationists, and was awarded a trip to the IUCN World Conservation Congress in Barcelona (October 2008) and given the possibility to present her ideas directly to leaders from around the world.</p> <p><i>Program: Creation of environmental awareness programs in China</i> Nokia has launched several environmental awareness programs in their factories. One of the largest is the Nokia Environmental Ambassadors Club in China which has attracted over 1.000 Nokia employees to work for environment in their spare time. More than 5400 hours have been contributed by the club's volunteers in 2007, for example, planting trees with neighboring suppliers, providing environmental education to Nokia Hope Schools in 10 cities in remote areas, and setting up battery recycling bins and environmental posters in Dongguan city center with other associations.</p> |
| <p>Outokumpu</p> | <p><i>Project: Reviving local fish stocks in the Tornio River, Finland</i> In spring 2007, Outokumpu commissioned the planting of about 3.300 sea trout and 24.000 migratory common whitefish in the Tornio River to revive the depleted local stocks. The fish population is to be restocked annually in the future. The value of the planted fish was about 10.000 Euros. The fish were planted by the Finnish Game and Fisheries Research Institute under the supervision of Lapland's fishing authorities.</p> <p><i>Project: Protecting wading birds in Sheffield, Great Britain</i> At the Sheffield site, an area was established to provide protection for wading birds who might decide to nest there during the spring. Activities include checking that nesting birds are not being disturbed and ringing to establish future breeding and migration patterns.</p> |
| <p>Rautaruukki</p> | <p><i>Restoration of lands and water bodies in Aittalahti, Finland</i> In 2007, Rautaruukki in co-operation with other stakeholders rehabilitated land areas and water bodies in Aittalahti. Nesting possibilities of birds were improved and a bird-watching tower was built.</p> |
| <p>VR Group</p> | <p><i>Support for management of traditional biotopes (in partnership with SLL)</i> VR has supported the conservation of traditional biotopes²⁴ through the Finnish Association for Nature Conservation (SLL). Five cents was donated to the conservation of traditional biotopes from each train ticket that was sold during September 2008. The money was channeled to the management of 40 traditional biotope sites.</p> |
| <p>OP-Pohjola Group</p> | <p><i>Support for the Naturewatch program (WWF Finland)</i> During 2007, 26.700 Euros was donated to WWF Finland's Naturewatch program. In 2008, 40 000 euros was donated to the Finnish Association for Nature Conservation</p> |

²⁴ Meadows, grazing lands, woodland pastures, moors and areas cleared and burnt-over for cultivation are called traditional rural biotopes. They have been formed by centuries of traditional pasturage and mowing, which have now ended. The species composition in traditional biotopes is highly diverse. (Rassi ym. 2001)

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| | (SLL) for their work against climate change. |
| Tapiola Group | <p><i>Owned protected areas</i> Tapiola owns 17.5 ha and 1.25 ha of land in the bird and special forest type protection (Natura network) areas in Kirkkonummi and Porvoo respectively.</p> <p><i>Support for the rehabilitation of a lake</i> Tapiola sponsors, now for the third year, the rehabilitation of a small lake in southern Finland (matalajärvi). The lake has been classified as a Finnish Important Bird Area.</p> <p><i>Support for arranging guided tours to the nature (in partnership with SLL)</i> In 2008, Tapiola started supporting a project (Find the nature near you) that intends to make people familiar with their immediate nature. In several localities nature tours are arranged free of charge and they guided by certified nature guides and volunteers from SLL. The tours are intended to provide positive nature experiences.</p> |
| Bank of Åland | <p><i>Support for nature conservation projects</i> In 1998, the Bank of Åland established a special account called "nature account" (luontotili). At the end of the year a sum that equals 0,2 % of all the deposits the nature account is donated to nature conservation. So far in total 564.000 Euros have been donated to nature conservation. In 2008, the Bank of Åland donated 82.000 Euros to several projects e.g. the Baltic Sea Action Group (BSAG) was supported with 35.000 Euros (reducing nutrient discharge from the agriculture in St. Petersburg) and NatureGate was supported with 10.000 Euros.</p> |
| KESKO | <p><i>Support for Operation Mermaid (WWF Finland)</i> KESKO has supported the Operation Mermaid and a representative from KESKO is in the board of directors of WWF.</p> |
| Tradeka | <p><i>Support for SLL through the use of loyal-customer's card</i> Tradeka's YkkösBonus loyal-customer scheme provides cardholders a possibility to support SLL. Cardholders who agree to make such a contribution carry a special YkkösBonus card bearing a picture of a ringed seal.</p> |

3 National or regional business and biodiversity initiatives

3.1 National initiatives

Finland's national business and biodiversity initiative

The Ministry of the Environment of Finland is currently working with IUCN and WWF to launch a national business and biodiversity initiative in the first quarter of 2009. The role of the Ministry of the Environment is to act as a facilitator and in the long run the initiative is intended to function through the work of ENGOs. The Ministry of the Environment of Finland is preparing a larger happening in order to attract media-attention. Representatives from Nokia and UPM-Kymmene have been invited as speakers. It is still unclear whether the initiation phase will be funded by companies.

The national initiative will aim to involve mainly small and medium-sized companies. This approach has been chosen in order to avoid duplication of efforts since international business and biodiversity initiatives are expected to efficiently involve large Finnish companies in the near future. It has also been recognized that it will be essential to tailor the biodiversity measures to the specific needs of the companies.

Needless to say the initiative is based on the voluntary measures of companies. Nevertheless, the initiative intends to incorporate biodiversity in a cross-cutting manner into all activities of a company. This differs significantly from the traditional approach, where companies support financially external biodiversity projects, but do little to change the overall impact of their activities. In this context it is important to note that companies are already commonly integrating climate change mitigation into their business activities, but biodiversity issues are mostly supported externally.

Finnish Business & Society ry

Finnish Business & Society ry (FiBS) is an enterprise network that was established in 2002. Its mission is to promote Finnish companies to voluntarily engage in financially, socially and ecologically responsible operations. FiBS does not specifically promote companies to engage in the conservation of biodiversity, but universally promotes engagement in environmental-related activities. FiBS is a member of the CSR Europe business network for corporate social responsibility and the Global Reporting Initiative (GRI). Currently FiBS is translating the GRI G3 guidelines into Finnish. As referred above, many Finnish companies use the GRI guidelines in their corporate responsibility reports. FiBS is funded by the Ministry of Employment and the Economy.

3.2 Finnish ENGO initiatives

WWF Finland's initiatives

The Finnish branch of the World Wildlife Fund (WWF Finland) has several initiatives that encourage companies to take part in the protection of the environment²⁵. Some of these initiatives are strongly related to conservation of biodiversity. The initiatives are described briefly below:

1. **The Naturewatch program** is an environmental education program. The aim of the initiative is to get young students familiar with their local nature. During the school year 2008-2009 the education will concentrate on issues related to water systems and the protection of the Baltic Sea. WWF Finland is involved in the international Naturewatch Baltic network, which has participants also from Sweden, Estonia, Latvia, Lithuania, Poland and Russia. The project is also linked to friendship school activities between Finnish and Malawian schools. Canon, Fortum, Metso Corporation and Toyota are the main supporters of this initiative.
2. **Operation mermaid** is an initiative that provides companies the possibility to support the protection of the Baltic Sea. The work concentrates on oil spill response, prevention of eutrophication and protection of endangered species. The initiative has established a network of volunteers that are trained to combat possible oil spills in the Baltic Sea. Work has also been done to revive the populations of the white-tailed eagle. Hartwall, Kinnarps, Neste Oil, Nokia Corporation, Oriola-KD, Sharp and Silja Line are the main supporters of operation mermaid.
3. **Perintömetsä** -project is an initiative that promotes voluntary protection of biologically valuable forests. It is intended to strengthen in particular the protection of forests in southern Finland, where protected forest areas are in scarce. The campaign has gained popularity especially among private forest owners. Also the forest company UPM-Kymmene has joined the initiative and established 12 protected forest areas.

The Finnish Association for Nature Conservation (SLL)

The Finnish Association for Nature Conservation (Suomen Luonnonsuojeluliitto, SLL) is also cooperating with the business sector. Companies can either support SLL financially or participate in one of several initiatives. The business partners of SLL include: Tradeka, Tapiola Group, Finnair Group, Lumene Group, VR-Group Ltd, Konekesko Oy Marine, Kalevala Jewellery Oy, TDC Song, Veikkaus Oy and McNaiset magazine. Many of the initiatives are relatively new and have started during 2007 or 2008. The most important joint initiatives are described in chapter two.

²⁵ More information can be found from the website of WWF Finland: <http://www.wwf.fi/english/> (visited 15.9.2008)

BirdLife Finland

BirdLife Finland is a partner of BirdLife International²⁶. It consists of 30 Finnish bird societies and aims to protect biological diversity in general, and bird watching, bird research and protection of birds in particular. Several companies support the work of BirdLife Finland, inter alia, Kemira, Nikon, Finnature, Skaftung Nature and Ornio.

Important Bird Areas (IBAs) program of BirdLife International aims to identify, monitor and protect a global network of IBAs for the conservation of the world's birds and other biodiversity. BirdLife Partners take responsibility for the IBA program nationally. Several Finnish companies support the IBA program, including Ekokem, Helsingin vesi, Joutsen, Karttakeskus, Kultasointu, Lintuvaruste, Mtv3, Nikon, Espoon Notaarikeskus Oy, Pohjanväre and Pöyry Forest Industry Consulting Oy.

3.3 Regional initiatives

A Nordic initiative

In April 2008, before the CBD COP9 in Bonn, the Nordic Council of ministers discussed the possibility of initiating a Nordic business and biodiversity initiative. The discussion of the initiative was based in the fact that the Nordic countries cooperate well in the environmental sector. A good example of this is that the Nordic countries have a common official ecolabel - Swan ecolabel - that was introduced by the Nordic Council of Ministers in 1989²⁷. The swan ecolabel is used in Finland, Sweden, Norway, Denmark and Island, and it covers currently 67 different product groups. The Swan ecolabel is commonly perceived as a good example of healthy contacts between the economy and environmental sector. Even though the Swan ecolabel is a showcase of fruitful cooperation between Nordic countries, the discussion of establishing a Nordic business and biodiversity initiative has not yet lead to any concrete steps.

3.4 Global business and biodiversity initiatives

Germany's business and biodiversity initiative

Germany's business and biodiversity initiative was launched by the German Federal Environment Ministry (BMU) to encourage active participation of companies to the objectives of the CBD at the ninth meeting of the Conference of Parties (COP9) in May 2008. The initiative is primarily aimed at German companies, but services are also provided to international companies. Currently 34 companies have signed the initiative, including a Finnish forestry company UPM-Kymmene²⁸.

²⁶ More information can be found from the website of BirdLife Finland: <http://www.birdlife.fi/english/index.shtml> (visited 16.9.2008)

²⁷ More information can be found from the website of Swan Ecolabel: <http://www.svanen.nu/eng> (visited 1.10.2008)

²⁸ A list of all members can be found from the following website: <http://www.gtz.de/en/themen/laendliche-entwicklung/23543.htm> (visited 1.10.2008)

IUCN: Countdown 2010

Countdown 2010 is a global initiative that was launched by the IUCN in 2004 to ensure that “all governments and members of civil society, at every level, have taken the necessary actions to halt the loss of biodiversity by 2010”²⁹. The initiative is also open to the private sector. Partners are encouraged to define some specific commitments for their organization. The ‘Countdown 2010 Assessment Tool’ enables to assess the impact of current organization's activities on reducing biodiversity loss. In Finland only one company – Kosken Kartano – has signed the initiative.

3.5 Global initiatives related to business and biodiversity

UN initiative: Partnerships for Sustainable Development

In 2002, at the World Summit on Sustainable Development (WSSD) a voluntary initiative was launched to facilitate the co-operation between different stakeholders that work for sustainable development. Multilateralism is an important feature of the initiative: community-based groups, governments and NGOs work together with private companies to address development challenges. Today altogether 330 partnerships are registered with the Commission on Sustainable Development (CSD)³⁰. ‘The Energy and Environment Partnership’ is an ambitious multi-stakeholder project that the Finnish government has supported together with several Finnish energy companies in Central-America since 2002³¹. Biodiversity is a secondary theme in this partnership.

²⁹ The website of the Countdown 2010 initiative: <http://www.countdown2010.net> (visited 30.8.2008)

³⁰ The Partnerships database is located at the homepage of Partnerships for Sustainable Development: <http://www.un.org/esa/sustdev/partnerships/partnerships.htm> (visited 1.9.2008)

³¹ More information from the website of the Energy and Environment Partnership: www.sica.int/energia (visited 15.9.2008)

4 Biodiversity research supported by companies

This chapter highlights existing or past research activities supported by companies. As instructed attention is given to research that focuses on conservation in general, impacts of companies' activities as well as mitigation and restoration. Research activities supported by companies are listed in table 4.

Table 4. Biodiversity research supported by companies.

| Company | Reserach activities |
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| <p>Stora Enso Oyj</p> | <p><i>Mitigation: Ensuring the legal Origin of Wood</i> Stora Enso and WWF Russia have carried out a joint study called “Ensuring the Legal Origin of Wood”³². The new Forest Code in Russia was enacted on 1 January 2007. The development of the Russian Forest Code and related regulations was monitored from 2006 until spring 2008. The purpose of the project was to analyse those aspects of the new Forest Code and related new regulations which are essential for ensuring the legal origin of the wood purchased in Russia. The changes in the regulation concerning forest user rights, wood harvesting and wood transportation were assessed. The project also conducted a case study in the Vologda Region where the public authorities and forest enterprises were interviewed.</p> <p><i>Survey of flora and fauna in coastal areas of Guangxi (China)</i> In 2007, Stora Enso continued trials involving the planting of native tree species, and also initiated a new biodiversity conservation partnership together with UNDP China, China’s State Ocean Administration and the Beihai Mangrove Research Institute. Work has already begun on a survey of flora and fauna in coastal areas of Guangxi. The results of the survey will be used in the planning of conservation targets and actions in 2008.</p> |
| <p>UPM-Kymmene Corporation</p> | <p><i>Conservation in general: Comprehensive habitat survey (1997-2002)</i> UPM completed a five-year program to survey all valuable habitats in UPM’s Finnish company forests. Altogether over 21.000 valuable sites were identified during the survey. 12.000 of these are protected voluntarily by the company and 9.000 by law. As a part of the habitat survey, vascular plants, mosses and liverworts were inventoried from small water ecosystems. The inventory showed, inter alia, that 75 % of threatened and near threatened species protected by law could be found in commercial forests.</p> <p><i>Conservation in general: Birds as bioindicators of biodiversity</i> UPM has started a joint project with University of Moncton and Time Inc using bird species as indicators of biodiversity in managed forests. The aim is to measure bird responses to different forest management treatments in order to help develop harvest plans and logging methods compatible with the conservation of healthy populations. The Pileated Woodpecker is one of the species to be monitored. The project will be carried out over a three year period and the summary results will be published UPM webpage.</p> <p><i>Mitigation: Artificial deadwood habitat for beetles (Finland)</i> In 2003, UPM initiated a study to understand the value of decaying wood to biodiversity. In a trail spruce and aspen trees were cut into snags (four meters tall) on two separate</p> |

³² Project document available at:
<http://www.storaenso.com/sustainability/Documents/Stora%20Enso%20WWF%20Russia%20Report.pdf> (visited 2.9.2008)

sites. Over 200 cubic meters of wood per hectare had been felled and left decaying. During the first follow-up year, a total of 302 different beetle species were found (including a number of rare species). These findings show that endangered species living in decaying wood can occur in intensively-managed commercial forests provided that their substrata and habitats are preserved, or more are created. UPM is continuing species monitoring.

Restoration: Creating habitat for fire dependent species (Finland)

UPM is carrying out a fire project in Finland that aims to increase the quantity and quality of habitats of fire dependent species. The population levels of species favouring fire habitats have been declining in recent years due to less use of fire in silviculture and very efficient fire control. UPM will study the impacts of these fire areas on species in cooperation with the Finnish Environmental Institute (SYKE). The study will also compare the costs of different methods and the impacts on species in order to identify the most effective controlled burn method.

Conservation in general: Fungi as indicators of forest health (USA)

UPM in partnership with USDA Centre for Forest Mycology Research studied the occurrence of forest dwelling fungi (known as ecto-mycorrhizae) on UPM's lands in northern Minnesota. This is the first survey of its kind in the Midwestern United States, and was finished in 2007. The study included the use of DNA technologies and revealed that Blandin lands contain a number of fungi species that had not been found previously through traditional visual means.

Impact-oriented: The Catamaran Brook Watershed project (Canada)

This research project began in 1989 and focuses on the impact of forestry on aquatic habitats and populations in general, and on the Atlantic salmon in particular. UPM has committed the entire Catamaran watershed (4.800 hectares) to facilitate this project and provides research and technical expertise on the forestry side. The project is carried out in collaboration with the Ministry of Fisheries and Oceans as well as several universities and local salmon conservation associations.

Restoration: Recovering the black grouse (UK)

The project began in 1998 and aims to increase the local populations of the black grouse that has declined rapidly in recent years in the UK. UPM forests form part of the core black grouse habitat in North Wales and UPM is taking an active role in a recovery project aiming to increase the local breeding population. The aim is to produce mixed forests by planting broadleaves in addition to coniferous trees to ensure that habitat requirements are met. This project is a partnership with Royal Society for the Protection of Birds (RSPB), the Countryside Commission Wales and the Game Conservancy Trust.

Conservation in general: Radio tracking of three-toed woodpecker (Finland)

In 2005, UPM together with the University of Helsinki conducted a radio tracking study to find out the environmental requirements of the three-toed woodpecker.

Fortum

Fortum Fondation

Fortum Foundation supports research and development work and training related to the energy industry. Support is given also to research in the field of natural sciences. The Board of the Foundation approved nearly 700.000 Euros of funding for 2008. This includes one biodiversity-related study: biodiversity effects of turnip rape and oilseed rape cultivation, conducted by the Finnish Museum of Natural History.

Cooperation with several Finnish research institutes (aquatic ecosystems)

Fortum has done research cooperation with SYKE, regional environmental centers and RKTL in order to solve the impacts of how hydro-electric power on aquatic ecosystems (fish fauna, zoobenthos and aquatic vegetation). In waterway regulation projects research has been done to find out how the state of the aquatic ecosystems can be

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| | improved without impairing hydroelectric power production. Research has shown, inter alia, which species are vulnerable to regulation of water bodies. |
| Nokia Corporation | <p>Mitigation: ecological foot print analysis</p> <p>In 2007, Nokia worked with WWF and carried out an ecological footprint analysis in the Komárom manufacturing site. The study identified Nokia's footprint, opportunities and recommendations in different areas of the ecological footprint. As a result of the study, the Nokia environmental team is in the process of:</p> <ul style="list-style-type: none"> • Selecting and implementing quick actions such as arranging communication sessions, using recycled paper, and setting all computers to double-sided printing • Defining intermediate and long-term actions • Contacting suppliers and collaborators to influence them, inter alia, to reduce the quantity of non-reusable packaging <p>All actions will be implemented globally, when relevant and possible.</p> |
| Outokumpu | <p>Impact-oriented: Regular surveying of fish stocks</p> <p>Outokumpu's environmental obligations also include the regular surveying of the fish stocks and the bottom fauna found adjacent to the facilities. The main results of these surveys indicate that the fish are healthy, and the amounts of metals found in the fish have not increased.</p> |
| KESKO | <p>Home-MIPS project (in partnership with SLL)</p> <p>KESKO has supported the Home-MIPS project that is coordinated by the Finnish Association for Nature Conservation (SLL). The project studies the consumption of natural resources of Finnish households by using the MIPS method. The project gathers MIPS information from different aspects of consumption (travelling, living and traffic).</p> |

Conclusions

It is clear that the conservation of biodiversity has not attracted as much attention from companies as the mitigation of climate change. This was also clearly stated in some replies to the enquiries e.g. one respondent wrote: *“At this moment other environmental activities are left in the shadow of climate change issues. Nevertheless, I see that they strongly relate to each other. However, I would see biodiversity as a broader entirety.”* It was also easy to find information e.g. about increasing energy efficiency or the use of renewable energy resources. In addition, the more efficient use of water and raw materials as well as recycling seems to be an integral part of companies' activities in today's world. However, this short review shows that conservation of biodiversity is an evolving aspect of corporate responsibility, although still relatively marginal.

Only few companies - mainly forest industries - report separately on biodiversity. A link to biodiversity is clear for some sectors, such as forestry or fisheries, and is therefore generally easier to assess and communicate biodiversity impacts. However, there is still a major challenge to measure performance regarding biodiversity impacts, especially for companies that do not use land and thus have only indirect impacts (IUCN & ICNB 2008).

It is a common practice that large Finnish companies use the GRI reporting guidelines as a checklist of indicators to include in their sustainability reports or annual reports. However, this review shows that even though companies use the GRI reporting guidelines as a checklist, they seldom report on biodiversity. Information on biodiversity (indicators EN11- EN15) is often reported simply 'information not available'. It is worthwhile to point out that some companies (e.g. Tapiola Group and Outokumpu) that do not have a clear link to biodiversity do, in fact, report on biodiversity issues.

At present, giving financial support (**philanthropy**) to ENGO driven biodiversity-related initiatives is a common strategy for companies to support biodiversity issues. In Finland two ENGOs (WWF and SLL) work jointly with the private sector. Companies probably like to support initiatives driven by WWF and SLL since they have gained public recognition as the most important organizations that work for the benefit of the nature. It is important to emphasize that especially the forest industries have taken a long step further from giving only financial support to NGOs, but have established highly operational partnerships with NGOs. A remarkable example is the partnership between Stora Enso and UNDP China that work together to conserve the local biodiversity, and at the same time have connected the work more broadly to development and poverty eradication.

Recently it is understood that solutions should be found to allow companies to participate more actively in conservation and sustainable use of biodiversity. To go one step further companies should develop strategies, policies and operational responses to reduce, control and mitigate impacts on biodiversity (**management**). The biodiversity-dependent industries (mainly forest industries) have all developed strategies and operational responses for considering biodiversity issues in their operations. Kesko is a good example from retail trade companies since it is developing policies for the acquisition of timber, fish and biofuels in order to minimize the negative effects on biodiversity.

When it comes to integrating biodiversity fully into business models and developing new business opportunities linked to biodiversity conservation (**value creation**), it seems that UPM-Kymmene comes closest to achieving this level. UPM's global biodiversity program and separate country level targets as well as local action plans are good examples of integrating biodiversity comprehensively in all business operations. In addition, the program includes biodiversity research through specific

projects. Linking research to a programmatic level has been productive and this is shown by UPM's extensive list of research activities.

The Finnish business and biodiversity initiative, that is in preparation, is intended to involve companies more strongly to biodiversity conservation by encouraging companies to consider biodiversity impacts in all business activities. This would mean going from externally supported projects (philanthropy) to linking biodiversity fully into all business models (management and value creation). A major question will be how to participate small and medium-sized companies that mostly lack both the motivation and means to respond to an onerous call for biodiversity assessment, conservation and reporting.

A major driving force would be the establishment of a national biodiversity action plan, which proposes practical activities for all stakeholders, including private companies (IUCN & ICNB 2008). National Biodiversity Strategy and Action Plans (NBSAPs) are promoted under the CBD as an internationally recognized programme for addressing threatened species and habitats and are designed to protect and restore biological systems (IUCN & ICNB 2008). The National Action Plan for the Conservation and Sustainable Use of Biodiversity in Finland (2006-2016)³³ does not propose specific activities for private companies. Stronger private sector involvement would without question strengthen national implementation of the CBD as well as other biodiversity-related conventions.

³³ The Action plan can be found from the following website:
<http://www.ymparisto.fi/default.asp?contentid=253390&lan=en&clan=en>

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Annex 1. Details of the companies that have been contacted in order to get information for this report.

1. Biodiversity-dependent industries

Metsäliitto Group

Metsäliitto is the tenth largest forest industry group in the world. Its five business areas include wood supply, wood products, pulp, board and paper and tissue and cooking paper. Its sales are 8.0 billion euro. With 20 000 employees, the Metsäliitto Group parent company Metsäliitto Cooperative and subsidiaries Metsä-Botnia, M-real and Metsä Tissue operate in 30 countries.

Stora Enso Oyj

Stora Enso is an integrated paper, packaging and forest products company producing newsprint and book paper, fine paper, consumer board, industrial packaging and wood products. Stora Enso's sales totaled EUR 13.4 billion in 2007. The Group has some 38 000 employees in more than 40 countries on five continents.

UPM-Kymmene

UPM is a global forest products group with core businesses in printing papers, speciality papers, label materials and wood products. In its main product areas, UPM is a leading manufacturer in all key markets. UPM has production in 14 countries and altogether 26 000 employees. The company's sales in 2007 exceeded EUR 10 billion. The group's key mills are located in Finland, Germany, France, the UK, Austria, the United States and China.

VAPO Group

Vapo is the leading supplier of local and renewable fuels, bioelectricity and bioheat, as well as environmental business solutions in the Baltic Sea Region. The Vapo Group consists of the Parent Company Vapo Oy and four business areas: Local Fuels, Heat and Power, Pellets and Garden and Environment. The Finnish State owns 50.1% of the shares in the Parent Company, Vapo Oy, and Metsäliitto Cooperative owns 49.9%. Vapo Group's turnover in 2007 was EUR 660,6 million. The Group had 1 828 employees.

2. Large footprint industries

Finnair Group

Finnair was established on 1st November, 1923. Its operations focus on transporting passengers between Europe and Asia, via Helsinki. Finnair Group operations cover scheduled passenger traffic and leisure traffic, technical and ground handling operations, catering, travel agencies as well as travel information and reservation services. The number of personnel of Finnair Group is approximately 9 500. Finnair's major shareholder is the Finnish government with a 55.8 per cent holding. Other shareholders include insurance companies, various companies and private individuals.

Fortum

Fortum is a leading energy company in the Nordic countries and other parts of the Baltic Rim area. Activities cover the generation, distribution and sale of electricity and heat as well as the operation and maintenance of power plants. In 2007, Fortum's sales totalled EUR 4,5 billion and operating profit was EUR 1,8 billion. The company employs approximately 8 300 people.

Metso Corporation

Metso is an international technology corporation that serves customers in the pulp and paper industry, rock and minerals processing, power generation and other selected industrial sectors. Metso Corporation comprises three main business areas: Metso Paper, Metso Minerals and Metso Automation. In 2007, Metso Corporation's net sales totaled over EUR 6 billion. Metso has business operations in approximately 50 countries, and almost 27 000 employees.

Neste Oil

Neste Oil is a refining and marketing company focused on advanced, clean traffic fuels, with a strategy that prioritizes growing its refining and premium-quality renewable diesel businesses. Neste Oil is divided into five divisions: Oil Refining, Oil Retail, Renewable Fuels, Shipping and Specialty Products.

Nokia Corporation

Nokia produces a wide range of mobile devices with services and software that enable people to experience music, navigation, video, television, imaging, games, business mobility and more. Nokia has 110 000 employees (including Nokia Siemens Networks). Nokia has sales in more than 150 countries and the net sales in 2007 was EUR 51,1 billion.

Outokumpu

Outokumpu is an international stainless steel company. Outokumpu holds 6 percent of the world market and 16 percent of the European market for rolled stainless steel. Outokumpu operates in some 30 countries and employs more than 8 000 people. The Group's head office is located in Espoo, Finland.

Pöyry Group

Pöyry is a global consulting and engineering firm focusing on the energy, forest industry and infrastructure & environment sectors. Pöyry's net sales in 2007 amounted to about EUR 720 million and the company has 8 000 employees.

VR-Group

VR Group is a Finnish transport company providing rail transport and supplementary road transport services. The Group generated net turnover of EUR 1,334 million in 2007 and employs altogether 12,540 people. VR Ltd, the Group's largest company, provides rail transport services and is Finland's leading freight and passenger carrier. Rail services account for some 53% of VR Group's total net sales.

Wärtsilä Corporation

Wärtsilä is the leading provider of ship machinery, propulsion and manoeuvring solutions. Wärtsilä supplies engines and generating sets, reduction gears, propulsion equipment, control systems and sealing solutions for all types of vessels and offshore applications. Wärtsilä commands a strong position in all main marine segments as a supplier of highly rated ship machinery and systems. Wärtsilä has 17 000 employees in 160 locations in 70 countries around the world. The net sales was EUR 3,763 million in 2007.

3. Biodiversity finance

OP-Pohjola Group

The OP-Pohjola Group is Finland's largest financial services group. It is made up of independent member cooperative banks and the Group's central institution, the OP-Pohjola Group Central Cooperative with its subsidiaries and closely-related companies, the largest of which is the listed company Pohjola Bank plc. The OP-Pohjola Group offers a comprehensive range of banking, investment and insurance services for both private and corporate customers. OP-Pohjola Group has a payroll of over 12 000 employees. OP-Pohjola Group's total assets at the end of 2007 stood at EUR 65,7 billion. The Group has a total of some 630 locations in Finland. The OP-Pohjola Group's Internet service portals are op.fi.

Sampo Group

Sampo Bank is a part of the Danske Bank Group, which is one of the largest financial enterprises in the Nordic region. The Group has 24 000 employees. Sampo Bank's earnings from Finnish operations in 2007 was EUR 274 million.

Tapiola Group

Tapiola Group is a customer-owned group consisting of four insurance companies: Tapiola General, Tapiola Life, Tapiola Corporate Life and Tapiola Pension. It also includes Tapiola Asset Management Ltd and Tapiola Bank Ltd.

Bank of Åland

Bank of Åland is a small bank in Finland that operates mainly in the Åland Island. Ban of Åland has approximately 500 employees and the net operating profit in 2007 was EUR 28, 6 million.

4. Developing green enterprises

5. Others (retail trade companies)

KESKO

Kesko is the leading provider of trading sector services and a highly valued listed company. Through its stores, Kesko offers quality to the daily lives of consumers. Kesko has about 2,000 stores engaged in chain operations in the Nordic and Baltic countries, Russia and Belarus. Kesko's operations include food, hardware and builders' supplies, car, department store, agricultural and machinery trade. The biggest divisions are Kesko Food, Rautakesko, VV-Auto, Anttila and Kesko Agro.

Tradeka

Tradeka Ltd is a retailing company, business is divided into the following three nationwide store brands: Siwa, Valintatalo and Euromarket. Tradeka reported a net turnover of EUR 1,387 million in 2007. The company owns around 760 grocery stores in Finland and three outlets in St. Petersburg, where it began operating in 1993. Tradeka Corporation is a major employer, with around 7,000 staff.

Annex 2. The enquiry consisted of four short questions that deal with the issues covered in chapters 2 and 4.

1. Are the biodiversity impacts of your company reported? How?
2. Which type of measures has your company taken to minimize the impacts on biodiversity?
3. Does your company take part in the conservation of biodiversity? How?
4. Does your company have any joint research activities with universities or research institutes concerning the conservation, sustainable use or restoration of biodiversity?

Annex 3. List of projects to which the EIA procedure shall be applied under section 4(1) of the EIA Act.

1) animal husbandry:

poultry houses and piggeries with more than

- a) 85,000 chickens or 60,000 hens,
- b) 3,000 pigs (with a weight of over 30 kg/pig) or
- c) 900 sows;

2) the extraction and processing of natural resources:

- a) the extraction, dressing and processing of metal ores and other mined minerals if the total amount of the extracted resource is at least 550,000 tonnes per annum, or quarries larger than 25 hectares;
- b) extraction of stone, gravel or sand if the area of extraction or excavation is larger than 25 hectares or the amount of the extracted land resource is at least 200,000 solid cubic meters per annum;
- c) asbestos extraction and installations for the processing and transformation of asbestos or products containing asbestos;
- d) the extraction, dressing and processing of uranium with the exception of test extraction, test dressing and other similar processing;
- e) peat production if the production area that can be considered as unified is more than 150 hectares;
- f) permanent alteration of natural forest, peatland or wetland over what can be considered a unified area above 200 hectares in size, by carrying out new ditching or by draining unditched peatland and wetland areas, by removing the tree stock permanently or by replanting the area with species of tree not indigenous to Finland;
- g) commercial production of crude oil and natural gas;

3) hydraulic engineering and regulation of waterflow:

- a) dams as referred to in section 9(2) of the Dam Safety Act (413/1984);
- b) reservoirs where the dammed or stored volume of new water or the increase in the volume of water is more than 10 million cubic meters;
- c) water body regulation projects, if the mean flow in the water body is over 20 cubic meters per second and the flow and water level conditions will change materially compared with the initial situation;
- d) transfer of water from one river basin to another where the volume of water to be transferred exceeds 3 cubic meters per second;
- e) flood prevention projects covering an area of at least 1,000 hectares;

4) the metal industry:

- a) foundries or smelting plants with an output of at least 5,000 tonnes per annum;
- b) iron and steel works, sintering plants and iron alloy manufacturing plants or calcining plants;
- c) metal works or calcining plants processing metals other than iron;

5) the forest industry:

- a) pulp mills;
- b) paper or board mills with a production capacity of more than 200 tonnes per day;

6) the chemical industry and the manufacture of mineral products:

- a) crude oil refineries;
- b) installations for the gasification and liquefaction of bituminous shale, coal or peat of at least 500 tonnes per day;
- c) factories manufacturing artificial fibers;
- d) plants using solvents or substances containing solvents and using at least 1,000 tonnes of solvents per annum;

- e) plants manufacturing on a large scale dangerous chemicals referred to in the Act on the safety of the handling of dangerous chemicals and explosives (390/2005);
- f) factories manufacturing mineral wool and cement;

7) energy production:

- a) boiler and power plants with a gross output of at least 300 megawatts;
- b) nuclear power plants and other nuclear reactors, including the demolition or decommissioning of these plants and reactors, except for research facilities intended for the production and conversion of fissionable and fertile materials and with a maximum continuous heat output of one kilowatt; nuclear power plants and other nuclear reactors cease to be categorized as such when the nuclear fuel and other radioactively contaminated elements have been permanently removed from the plant site;
- c) plants in which irradiated nuclear fuel is reprocessed;
- d) plants designed for
 - the production and isotopic enrichment of nuclear fuel;
 - the processing of irradiated nuclear fuel or high-level waste;
 - the final disposal of irradiated nuclear fuel;
 - the sole purpose of final disposal of radioactive waste or
 - the sole purpose of storing irradiated nuclear fuels or irradiated waste outside the production site (planned to last for more than 10 years);

8) the transmission and storage of energy and materials:

- a) main pipelines intended for the long-distance transport of oil and liquids other than water or wastewater;
- b) gas pipelines with a diameter of more than DN 800 millimeters and a length of more than 40 kilometers;
- c) overhead power lines of at least 220 kilovolts and a length of more than 15 kilometers;
- d) stores for oil, petrochemical products and chemical products when the total volume of the storage tanks for these substances is at least 50,000 cubic meters;

9) transport:

- a) the construction of motorways and expressways;
- b) the construction of a new road with four or more lanes of at least 10 kilometers of continuous length;
- c) the realignment or widening of a road so that the resulting continuous section with four or more lanes is at least 10 kilometers in length;
- d) the construction of long-distance railway tracks;
- e) the construction of airports if the main runway is at least 2100 meters long;
- f) shipping lanes, ports and loading and unloading facilities primarily intended for merchant ships of over 1,350 tonnes;
- g) canals and inland shipping lanes and ports for ships of over 1,350 tonnes;

10) water management:

- a) groundwater abstraction or the formation of artificially replenished groundwater of an annual volume of at least 3 million cubic meters;
- b) large raw water or wastewater tunnels;
- c) sewage treatment plants dimensioned for a population equivalent of more than 100,000;

11) waste management:

- a) hazardous waste disposal plants receiving hazardous waste for incineration, physiochemical treatment or disposal in landfills, and biological treatment plants dimensioned for a hazardous waste volume of at least 5,000 tonnes per annum;
- b) incineration plants for other than hazardous waste, or physiochemical treatment plants dimensioned for a waste volume of more than 100 tonnes per day and biological treatment plants dimensioned for a waste volume of at least 20,000 tonnes per annum;
- c) landfills for urban waste or sludge dimensioned for a waste volume of at least 20,000 tonnes per annum;
- d) landfills for waste other than that referred to in subparagraphs a and c and dimensioned for a waste volume of at least 50,000 tonnes per annum;