Briefly on Sustainability – Summary of Sustainability Brochures

Sustainability Brochures special issue.

CG & PARTNERS
KUTATÓ ÉS TANÁCSADÓ KFT.

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Introduction

Our company's main profile is the research of different dimensions of sustainability, and as a partner we have contributed to numerous researches concerning the ecological footprint, remunerative environmental investments and sustainability reports. Besides our profitable activities we share our knowledge with the students in higher education, involving them in our research activities.

The ten publications of the last two years were made by using our own financial resources only, and without utilizing financial resources for tenders.

Our aim is to allow students and other interested readers to get acquainted with the latest results of sustainability research, access the original materials by using references, find good starting-points to their own researches, and diploma thesis, and meet approaches that inspire thinking.

We destine our publications to "advanced readers", who know the basic concepts of the field, and if they are university students have successfully completed the preparatory courses. The generally known concepts of the field are not explained, we presume their knowledge.

The special issue of the Sustainability Brochures series is the summary of the outcomes of the previously published ten issues. We also offer interesting information for those who are acquainted with our previous issues, and we present: what happened since we published our brochures.

Please if you print this issue do so with the least possible environmental load, so we suggest using recycled paper, and two-page printing. If you don't need this publication any more, pass it to your friends.

Summary

This issue of the Sustainability Brochures series contains the summary of the brochures previously published.

It is characteristic of the 21st century that numerous, exceeding previous numbers, environmental, and economic problems occur, and because of this the interest towards sustainable development and ecologically responsible behavior increased. Nonetheless the interested reader could face the problem that technical literature in Hungarian is scarce. To eradicate this problem is one of the main aims of the Sustainability Brochures series.

It is characteristic of every issue of the Sustainability Brochures series that it puts forward the idea of sustainability. Practical, ordinary examples of sustainable development are presented like: unnecessary products, responsible buyer behavior, corporate responsibility, and the philosophy of corporate social responsibility.

Also the introduction of new, alternative economic indicators is important, because nowadays the previously used and common ones are not able to demonstrate with detail every important aspect of reality. With this aim in mind the ecological footprint, the most important alternative indicator, which is quite well known in Hungary, and supported by the European Union, is presented in detail. Numerous practical examples serve the better recognition of the ecological footprint. The analysis of China's ecological footprint and its regional differences is presented in detail, just like the criticism concerning the ecological footprint, which also serve the cognition of the practical aspects of the ecological footprint.

Since the surveys, as presented in one of the issues, show that the Hungarian population demands more knowledge concerning ecologically responsible behavior, the brochures satisfy these needs as well, and help create a more ecologically responsible society.

The effect of our brochures

In the online media press releases appear about the publication of the Sustainability Brochures, which also serve as a feedback about our work. The most successful, which had the biggest press exposure of the 9 previous publications was the publication about the ecological footprint of China. Amongst the 33 appearances there are the pages of the Hungarian green media like: Greenfo (http://greenfo.hu/hirek/2012/04/21/mekkora-labon-el-kina), or the Alternatívenergia (http://www.alternativenergia.hu/mekkora-labon-el-kina/47036), the scientific page BTL.hu (http://btl.hu/cikk/2012/04/17/mekkora-labon-el-kina), or the page called Út A Jövőbe[1] (http://utajovobe.eu/hirek/elelmezes/530-a-holdat-is-eltakarna-kina-okolabnyoma).

In the second most publicized brochure we collected the electronic calculators. Our fifth Sustainability Brochure has appeared besides Greenfo and Alternatívenergia, in Zip magazine, and on the page of Duoinfomóvár too. (http://www.zipmagazin.hu/hirek/-kornyezetvedelem/okolabnyom-szamitas-egyszerubben).

The first Sustainability Brochures has also drawn some press attention as well, articles about the 3rd publication, which is concerned with the acquaintance of the ecological footprint, and the 4th one as well, which is concerned with corporate social responsibility, has appeared in the regional daily with the highest circulation, Kisalföld.

The publication of the 6th brochure near Christmas, before the Buy nothing day, which is concerned with useless products, had drawn the attention of some green portals, we appeared in Greenfo (http://www.greenfo.hu/kiadvanyfigyelo-/2011/11/26/felesleges-termekek-vs-tudatos-vasarlas), and in Alternatíveneriga (http://www.alternativenergia.hu/jon-a-ne-vasarolj-semmit-nap/41071).

We hope that the appearance of these press releases reaches the widest possible audience, and its contents can be used by increasingly more people for their own development.

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[1] the page of the Hungarian magazine Út a Jövőbe, which means Way to the Future in English

I. The practice of ecological footprint (1st Sustainability Brochure)

Mainly, the first Sustainability Brochure presents the practical importance of the ecological footprint calculation. To do so it uses the most important free studies of Best Foot Forward (BFF), the application of the "Personal Stepwise" method, and summarizes the calculation of the ecological footprint of London.

As the study says: „the BFF, (Best Foot Forward), which was founded in 1997, and is based in Oxford, is one of the leading sustainability advisory organizations in Europe, and specialized on the calculation of ecological- and carbon footprint." The brochure presents the organization's 16 freely downloadable studies. In these 16 studies different products and organizations were examined, and in its course the items sustainability, CO_2 emission, water usage, energy consumption, quantities of waste and of course the ecological footprint as well were analyzed.

Table 1: The most significant studies of BFF

1. City Limits
The aim of the study was: to measure the Londoners' energy and material usage, make it calculable, and where it's possible demonstrate the flow of these sources. determine the ecological footprint of London, so that it helps to compare the English Capital with other regions. determine the policy of sustainable development. make recommendations about the easier access and use of data, to facilitate future analyses..
2. OFCOM
The study reviews the main elements of the ecological footprint, and annual CO_2 emission of Ofcom's – a dominant actor in the communication's market of the United Kingdom – 14 offices. The most significant emission is caused by commute, followed by the electrical energy usage of the servers. As a solution the study proposes the use of alternative energy sources, and the persuasion of the employees to avoid the use of car, and decrease the number of flights as well.

Source: Sustainability Brochure I., (p. 8-9.), downloaded:

http://cgpartners.hu/aas_szoveg/file/73_.pdf (July 12, 2012,)

In this issue after this, the studies are presented in more detail. First the study concerning Ofcom is presented, which helps to understand the practical significance and benefits of the ecological footprint's calculation, since the required data for the calculation are shown in detail, and solution alternatives are presented as well. By following these proposed solutions the organization's CO_2 emission and the size of the ecological footprint could be reduced.

The brochure continues by presenting the "Personal Stepwise" method. This method was used by the BFF too, in its various (8. 10. 15.) previously presented studies,

and can be freely accessible at the organization's website http://www.bestfootforward.com/tools/. This method calculates the ecological footprint by using an excel worksheet. This excel table is practically a survey which has questions about different practices in connection with lifestyle like: food/nourishment, transport, household, goods and services and other parameters. The filling in is helped by the fact that we continuously see the United Kingdoms' average numbers, which helps to avoid using significantly distorting, unreasonable data.

In the Sustainability Brochure, amongst the BFF studies the one called City Limits (7.) is presented in detail, where London's ecological footprint was calculated. During the City Limits study an excel table consisting of 13 worksheets was used, this way arranging the data necessary for the calculation of the footprint. During the calculation, data about different things were used:

- about the production and sale of food and tobacco,
- the household's food consumption,
- the materials of building industry,
- the production and sale of paper and cardboard,
- rubber and plastic products,
- batteries,
- electrical devices, and the flow of,
- energy consumption and CO^2 emission,
- water usage,
- transportation,
- the quantity of waste in London,
- the size and distribution of the occupied and built-in land of London.

As a result it was established that the ecological footprint of London is 6,63 gha, which is three times bigger than the global average, so London's average lifestyle is unsustainable.

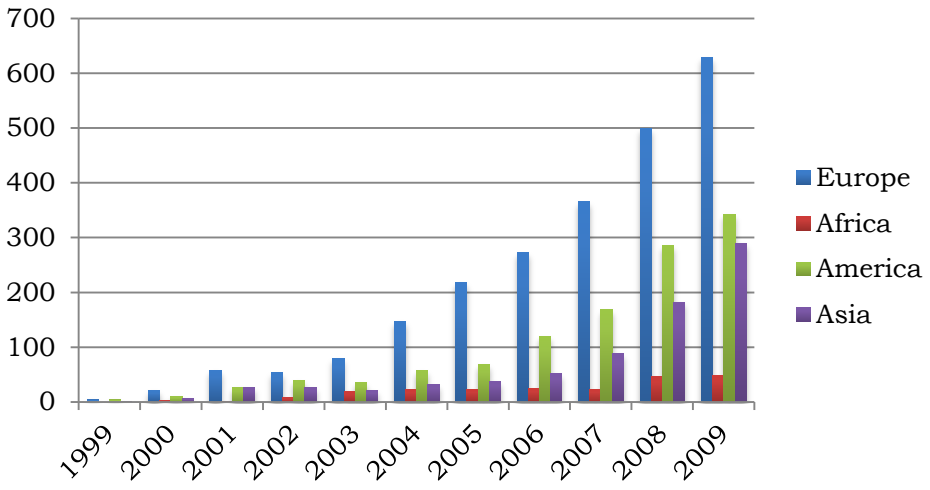
Since then the site of Best Foot Forward has renewed http://www.bestfootforward.com/) and it's accessible on Facebook too, and during the last two years they calculated for example the carbon footprint of the sandwiches as well.

II. The publication trends of non-financial reports. (2nd Sustainability Brochure)

The second Sustainability Brochure examines the publication trends of corporate non-financial reports. The examinations were made by using the data of three different organizations: Global Reporting Initiative, Corporate Register, and KÖVET Association for Sustainable Economies. By using the data of GRI and Corporate Register the international trends and by using the data of KÖVET Association for Sustainable Economies the Hungarian trends were examined.

The GRI has been examining the published reports since 1999. The levels of the reports vary from level A to level C+, where level A indicates the highest level. It's clear from the examination of the reports' trends that the numbers show a continuous increase, and Europe publishes the most reports by topping America.

Diagram 1 : The number of reports published between 1999 and 2009

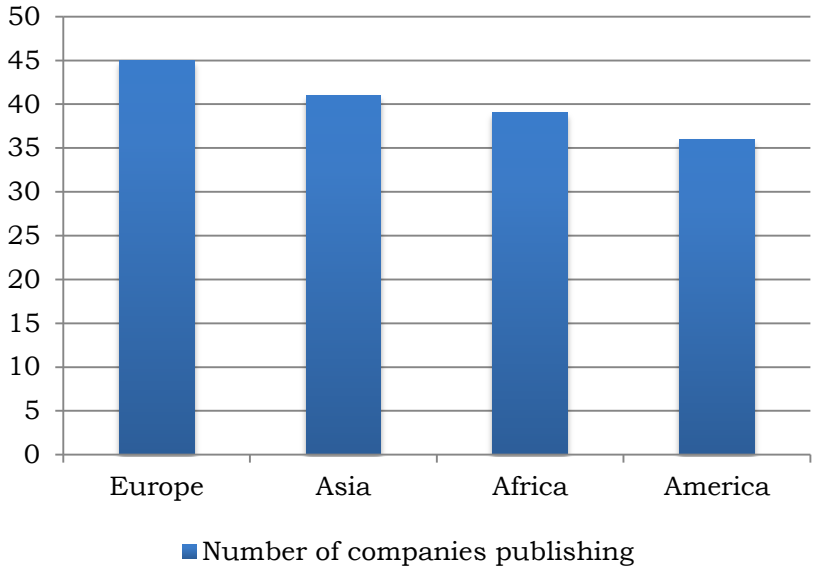


Source: Sustainability Brochure II, (p.6.), downloaded: http://cgpartners.hu/aas_szoveg/file/74_.pdf (July 12, 2012)

According to sectors the financial sector is the most significant publisher.

The Corporate Register examined the companies on the basis of geographical position. According to these data too Europe is the most significant publisher, by topping Asia.

Diagram 2: The number of companies publishing, according to the number of countries, divided by continents



Source: Sustainability Brochure II, (p.11.), downloaded: http://cgpartners.hu/aas_szoveg/file/74_.pdf (July 12, 2012)

In Europe the most significant publisher is the United Kingdom, topping Germany. According to companies the supportive sector and the banking sector is the most significant publisher.

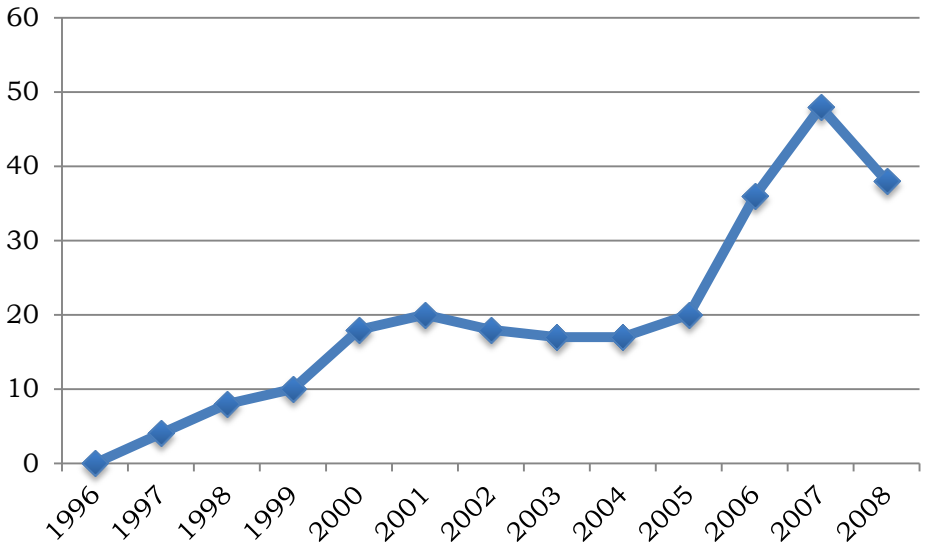
On the basis of the Hungarian analysis of trends using the data by GRI and Corporate Register, the continuous increase of the number of published reports can be observed until 2007, after that the negative effects of the 2008 European crisis can be felt.

On the basis of the comparison of the two companies' Hungarian data split into sectors, two significant differences occur: in the transport sector the Corporate Register shows six, the GRI shows 253 companies publishing, and in the tourism sector the data of Corporate Register show 31, while GRI's data show 261 companies publishing.

Considering, that the data provided by GRI and Corporate Register can't show a perfect picture of the Hungarian situation, it was required to do the analysis by using the data provided by the KÖVET association as well. According to these data

a similar trend can be observed too, a practically continuous rise, and a fall around 2008 caused by the crisis can be observed.

Diagram 3: The number of reports between 1996 and 2008



Source: Sustainability Brochure II, (p.20.), downloaded: http://cgpartners.hu/aas_szoveg/file/74_.pdf (July 12, 2012)

After the examination by sectors, it can be established that the engineering industry sector published the most significant number of reports, but unfortunately there are many sectors where only a single company publishes reports.

Nonetheless positive developments could be observed, namely that in the last years the number and type of reports have increased continuously.

Since the appearance of the issue the GRI has been working on the guidelines of a fourth generation, G4, sustainability report, and with the development of its contents and information, increases even more the quality of the sustainability reports. The testing and judgment of the new indicator is being carried out precisely during the publication of our 10th Brochure.

III. Research about the acquaintance with the ecological footprint (3rd Sustainability Brochure)

The third issue of the Sustainability Brochures series examines the acquaintance with certain environmental/economic indicators, with more emphasis on the acquaintance with the ecological footprint. The examination was carried out using a questionnaire between November 20, 2010 and February 10, on the homepage of

the CG & Partners Research and Consulting Ltd. 319 people participated in the survey, two thirds of which were women. With respect to previous education the picture is quite vivid.

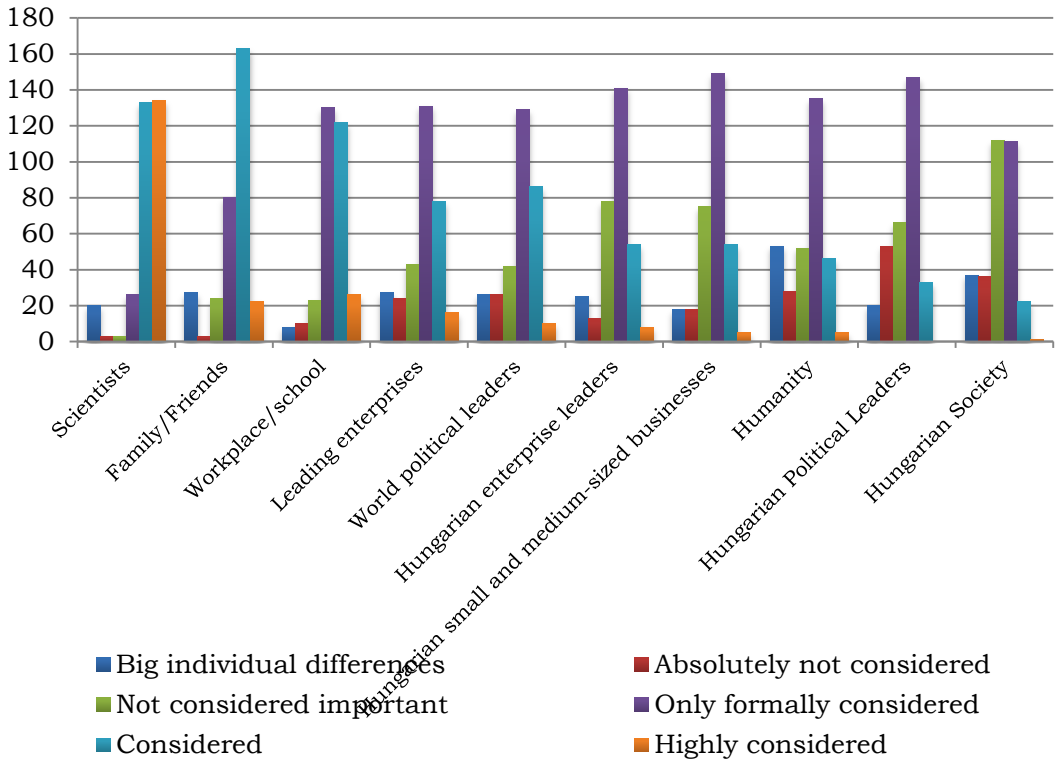
„First the respondents had to answer the question how environmentally conscious they consider themselves. They had to mark the answer on a six point Likert scale."[2] The average of the answers was 4, 63. The next question was about whether a company can be successful economically, and environmentally conscious at the same time, according to the respondents. The results showed a value of 5, 68. The third question was the following: „ according to your opinion are the growth of GDP and the improvement of the environmental situation compatible with each other?" Here the results only showed a value of 4, 97. The next bigger group of questions tried to find the answer to the question of how strongly certain economic actors involve environmental aspects in their decision-making. The following economic actors figured in the questions:

- the respondents' family/friends
- the respondents' workplace/school
- the Hungarian small and mid-sized business sector
- the leaders of the Hungarian big companies
- the leading companies of the world
- the Hungarian political decision makers
- the political leaders of the world
- the Hungarian society
- the scientists
- the humanity

[2] Sustainability Brochure III., (p. 7.), Downloaded:http://cgpartners.hu/aas_szoveg/file/108_kutatas_az_okologiai_labnyom_ismertsegerol__fenntarthatosagi_fuzetek_iii.pdf (July 12, 2012)

From the investigation of the aggregate results it is clear that the respondents hold the most positive view about their families/friends and the scientists, and the most negative about the Hungarian society and the Hungarian political decision makers as to whether they consider environmental aspects or not.

Diagram 4: Comparison of groups

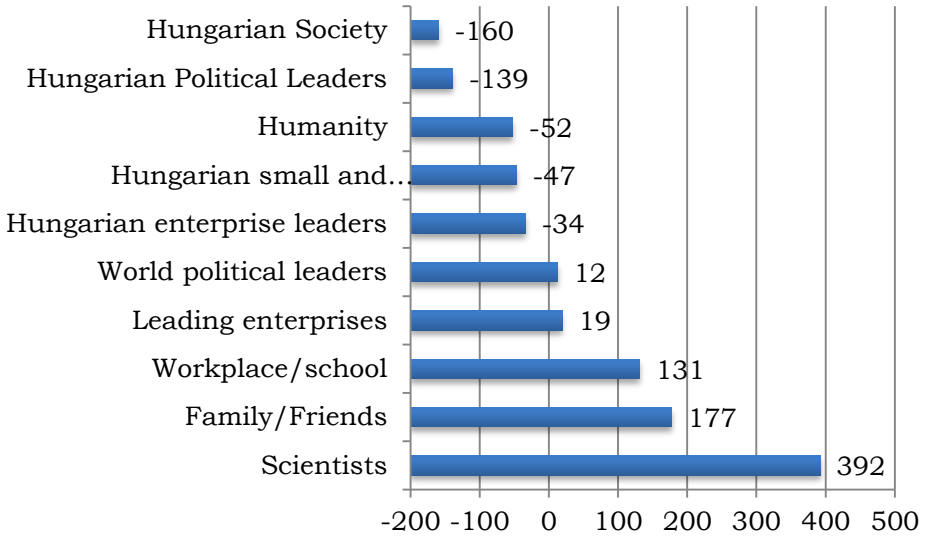


Source: Sustainability Brochure III, (p. 17.),

Downloaded:http://cgpartners.hu/aas_szoveg/file/108_kutatas_az_okologiai_labnyom_ismertsegerol__fenntarthatosagi_fuzetek_iii.pdf (July 12, 2012)

If we closely examine, and score the answers starting with the most negative (they do not consider it at all) answers, which worth -2 points, to the most positive (they consider it very important) answers, which worth +2 points, then the superiority of the scientists is even more obvious.

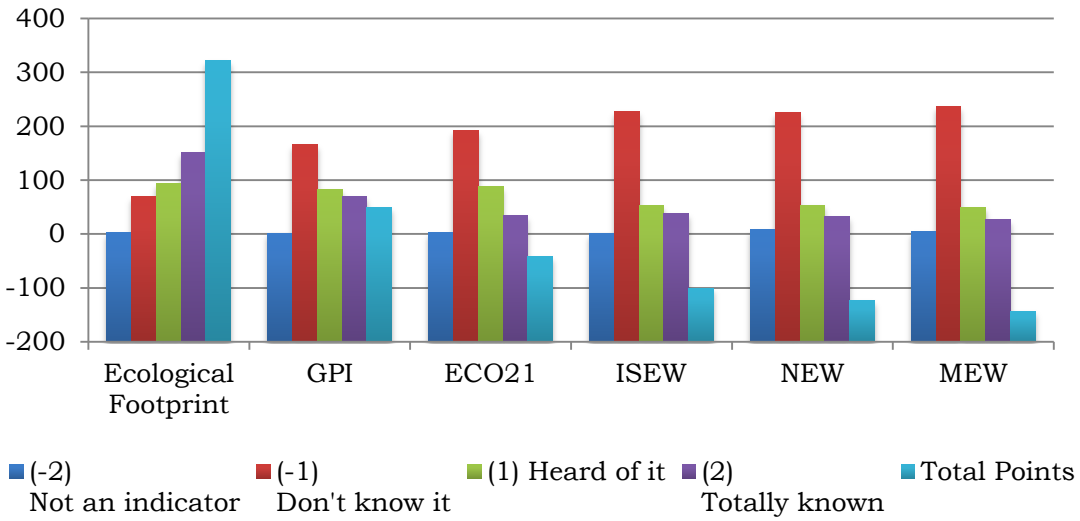
Diagram 5: The consideration of environmental aspects



Source: Sustainability Brochure III, (p. 18.),
Downloaded:http://cgpartners.hu/aas_szoveg/file/108_kutatas_az_okologiai_labnyom_ismertsegerol__fenntarthatosagi_fuzetek_iii.pdf (July 12, 2012)

The next chapter examined the acquaintance with the economic/environmental indicators amongst the respondents, with special emphasis on the ecological footprint. The examined indicators were the following: ISEW, GPI, NEW, MEW, ECO 21, and the ecological footprint. It can be stated with certainty that the ecological footprint is the most well known indicator.

Diagram 6: Comparison of indicators



Source: Sustainability Brochure III, (p. 18.), Downloaded:http://cgpartners.hu/aas_szoveg/file/108_kutatas_az_okologiai_labnyom_ismertsegerol__fenntarthatosagi_fuzetek_iii.pdf (July 12, 2012)

It turned out from the detailed examination concerning the ecological footprint that almost 90% of the respondents have already heard about this indicator, mostly in school, or from the television or the newspapers. According to the respondents the most important danger concerning the indicator is that lobby groups will take advantage of it, or the administration costs could be high. The research concerning the „overshoot day", when humanity exceeds the "budget" provided by nature, shows that the majority of the respondents don't know this expression, so they can't guess its actual date either.

On the whole it can be said that the amount of knowledge of the society about environmental issues is increasing, nonetheless there is still much work to do.

Since then the indicator has been getting increasingly well known, in 2009 a Google research gave 17 400 000 hits for ecological footprint, which during the last two years has quadrupled, and the number of hits reached 76 500 500 in 2011, and 85 300 000 in July 2012.

IV. Workplace health promotion in the light of CSR (4th Sustainability Brochure)

The fourth issue of the Sustainability Brochures series examines the connection between workplace health plans and corporate social responsibility.

Corporate social responsibility

Nowadays increasingly more attention is paid to the health and wellbeing of the employees. This is the aim of the spread of the CSR (corporate social responsibility) philosophy and the creation of workplace health plans. With the help of these measures, cost reduction, the improvement of workplace conditions and the health of the employees, and productivity increase can be achieved. The serious consideration of these ideas appeared in the early nineties in the US, and it appeared in Hungary in middle of the first decade of the 21st century. "The corporate social responsibility (CSR) is the voluntary commitment to the public welfare: through the business practices, involving the company's resources."[3] The question occurs what benefits the application of the CSR strategy holds. Examining the different scenes of companies, various possible gains appear. From the perspective of the marketing, on the one hand it has a positive message towards the people who get in some kind of connection with the company, and on the other hand it increases the loyalty and motivation of the employees as well. From the perspective of the public relations, the most significant benefit is that the internal communication becomes more open and sincere, thereby increasing the social relations inside the company. The effect of CSR is the biggest from the perspective of the human resources, with its help employees start to have increasingly more faith in the company's values and even become willing to work for a lower salary. When examining the social consequences it's important to note that in the 21st century the influence of certain companies has significantly increased, thereby greatly affecting the employees' life. By pursuing the CSR philosophy the companies can promote the evolvement of democratic values, business ethics, and support the education of the future generations as well. The application of CSR is voluntary, so it's not legally limited by laws. Nonetheless, since the seventies there have been

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[3] Sustainability Brochure IV, (p. 5.), Downloaded:http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf (July 12, 2012)

efforts to regulate corporate behavior. The main supporter of this process has been the UN and its various organizations. The three most important initiatives concerning CSR are the UN Global Compact, the special UN draft, and the European Union's CSR policy, which formulate recommendations concerning amongst other thing human rights, environmental protection, anti corruption for the companies, and urge the creation of united CSR standards. Because Hungary is a member of the European Union it's worth looking at the EU's initiatives about CSR. The corporate social responsibility, as an aim, was part of the Lisbon Strategy, and there have been numerous initiatives to reach this goal, like the 2001 Green Paper on CSR, and the foundation of the European Alliance for CSR, nonetheless the application of CSR strategy has remained an internal affair of the companies. A spectacular example of the application of CSR is the activity of Hindustan Lever Limited, the biggest soap producer in India. The company has followed a completely unique approach by making the treatment of diarrhea a central part of its activities, because "diarrhea annually causes the death of more than 2, 2 million people worldwide, and 30% of this occurs in India."[4] With the consistent application of this strategy they achieved that their net turnover has increased five times, and their market share reached almost 63%, and more importantly, the health conditions of the Indian population has started to increase. The program was such a big success that its implantation to other countries has been started.

Workplace health promotion

The aim of health promotion is "to achieve that individuals or communities be capable of controlling their own health in order to improve their own health conditions and quality of life as well."[5] The health promotion is especially important in Hungary because the rate of births and mortalities is depressing, and looking at the components of HDI (Human Development Index) it can be seen that life expectancy is low. As in the case of CSR, in the case of health promotion too, some international agreements have been adopted. The most important are the Ottawa

[4] Sustainability Brochure IV, (p. 15.), Downloaded:http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf (July 12, 2012)

[5] Sustainability Brochure IV, (p. 18.), Downloaded:http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf (July 12, 2012)

Charter for Health Promotion signed in 1986, which identified five action areas for health promotion:

- building healthy public policy,
- create supportive environments,
- strengthening community action,
- developing personal skills,
- re-orientating health care services toward prevention of illness and promotion of health,[6]

, and the resolution adopted at the WHO meeting in Geneva May, 22, 2004 about health promotion and healthy lifestyle. The means to achieve these goals are the workplace health programs, and the workplace health promotion. "The workplace health promotion contains all the common activities of the employers and employees which aim to improve workplace health and wellbeing. The joint application of three toolkits is required to reach these goals: the improvement of organizational structure, the guarantee of active worker participation and the strengthening of individual competence."[7] In Hungary, as in most countries, a law regulates the employers' duties concerning workplace health, but many steps can be taken beyond this to promote workplace health, like the Communal Scene Program[8].

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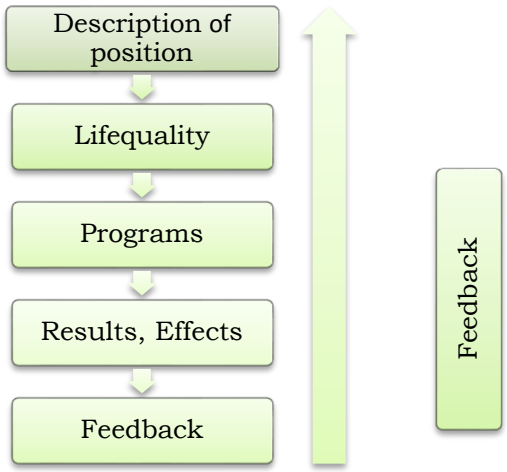
[6] Sustainability Brochure IV, (p. 21.), Downloaded:http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf (July 12, 2012)

[7] Sustainability Brochure IV, (p. 29.), Downloaded:http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf (July 12, 2012)

[8] Equivalent of Közösségi Színtér Program

Diagram 7: The preparation of the "Communal Scene Program"



Source: Sustainability Brochure IV, (29. o), downloaded: http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf (July 12, 2012)

The illustration demonstrates instructively the structure of this program, whose application can result in a healthier workplace. In Hungary important other programs are lifestyle changing team competition by „the National Institute for Health Development (NIHD), and the Association for Healthier Workplace"[9], or the pedal to work program.

On the whole it can be said that either corporate social responsibility or workplace health promotion are increasingly popular in Hungary, which could improve the health conditions of the country.

Since then CG & Partners Research and Consulting Ltd. has contributed to the creation of four small or medium enterprises' (SKC Consulting Ltd. from Budapest, the Aqua Supplier Ltd[10]. from Mosonmagyaróvár, Ablakcentrum Ltd., five times winner of Magyar Termék Nagydíj[11], from Győr, and Goodwill PR and

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[9] Sustainability Brochure IV, (p. 33.), Downloaded:http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf (July 12, 2012)

Equivalent of Egészségesebb Munkahelyekért Egyesület

[10] Equivalent of Aqua szolgáltató Kft.

[11] A Hungarian award for high quality products and services

Communications Agency[12] also from Győr) non-financial, CSR reports. The creation of these reports is the proof that not only the bigger, but the smaller companies too are capable of responsible functioning.

[12] Equivalent of Goodwill PR és Kommunikációs Ügynökség

V. Electronic ecological and carbon footprint calculators (5th Sustainability Brochure)

The fifth issue of the Sustainability Brochures collects different Hungarian and foreign ecological and carbon footprint calculators.

What is an ecological footprint, and what is it good for? "The ecological footprint is an indicator that represents that at a given technological efficiency how big is our demand towards our planet's natural resources, to insure our habitual consumption. The measurement unit of the ecological footprint is the global hectare (gha) which can be defined as the average of the Earth's total biologically productive hectares. More about the ecological footprint can be found in the first Sustainability Brochure made by our company.

The ecological footprint is the most important indicator of sustainability. With its help it can be determined that if every person followed our lifestyle, how many Earths would be required to sustain this. Thinking over this logically it's crystal clear that this value should not exceed the biologically productive area of the Earth. Nonetheless according to the global ecological footprint we use up an Earth and a half, instead of the one available. So our lifestyle is not sustainable."[13] Three different types of calculators are presented in the brochure:[14]

- ecological footprint calculators,
- carbon footprint calculators and
- other special calculators.

Hungarian calculators: the ecological footprint calculator on the site of GLIA Computer Technology and Consulting Ltd.[15] (http://www.glia.hu/okolabnyom/), the calculator on the site of Association for Sustainable Economies (KÖVET) (http://tavoktatas.kovet.hu/okolabnyom.html). Because both of these are in Hungarian, they are easy to use, the calculator of KÖVET is capable of calculating personal footprint, and takes about 15 minutes.

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[13] Sustainability Brochure V., (p. 4.), Downloaded:http://cgpartners.hu/aas_szoveg/file/185_elektronikus_okologiai_es_karbonlabnyom_kalkulatorok__fenntarthatosagi_fuzetek_v.pdf (July 13, 2012)

[14] Sustainability Brochure V., (p. 5.), Downloaded:http://cgpartners.hu/aas_szoveg/file/185_elektronikus_okologiai_es_karbonlabnyom_kalkulatorok__fenntarthatosagi_fuzetek_v.pdf (July 13, 2012)

[15] Equivalent of GLIA Számítástechnikai és Tanácsadó Kft.

Calculators in English:

- Conservation International (http://www.conservation.org/act/live_green/carboncalc/Pages/default.aspx),
- Ecological Footprint Quiz (http://files.earthday.net/footprint/flash.html),
- Global Footprint Network (http://www.footprintnetwork.org/gfn_sub.php?content=calculator),
- Redefining Progress (http://www.myfootprint.org/en),
- the calculator of WWF (http://footprint.wwf.org.uk/).

The calculators of Global Footprint Network and Redefining Progress can be accessed in different languages, the calculators of Global Footprint Network and Ecological Footprint Quiz are almost identical, the calculator of WWF is the easiest to use, but it takes the most time (around 15 minutes).

Carbon footprint calculators in Hungarian: the calculators on the site of CO2NTRA, and on the site of the campaign „Hold Back"[16]. The calculator of CO2NTRA uses the household energy consumption, and the habit of driving and air travel, the calculator of „Hold Back" uses yes-no questions to determine the results, so it is not so precise. Amongst the calculators in English the following appear:

- „the calculator of Act on CO_2" (http://www.direct.gov.uk/en/Environmentandgreenerliving/Thewiderenvironment/Climatechange/DG_070060),
- the calculator of Bonneville Environmental Foundation (http://www.b-e-f.org/carbon/event, http://www.b-e-f.org/carbon/calc/personal),
- the calculator of BP (The British Petroleum Company) (http://www.bp.com/iframe.do?categoryId=9036038&contentId=7066737&nicam=vanity&redirect=www.bp.com/energycalculator),
- Carbon Footprint calculator (http://www.carbonfootprint.com/calculator1.html),
- the calculator of the organization Carbonfund (http://carbonfund.org/business-calculator),
- the calculator of Carbon Footprint Offset (https://www.clear-offset.com/offset-my-carbon-footprint.php, https://www.clear-offset.com/carbon-offset-my-business.php),

[16] Equivalent of „Vegyél Vissza"

- Climate Crisis calculator (http://www.climatecrisis.net/take_action/become_carbon_neutral.php),
- Earthlab calculator (https://www.earthlab.com/createprofile/reg.aspx),
- the calculator of Ecosystem Restoration Associates (ERA) (https://carboncalc.eraecosystems.com/),
- the calculator of Empowerment Institute (http://www.empowermentinstitute.net/lcd/index.html),
- EPA calculator (http://www.epa.gov/climatechange/emissions/ind_calculator.html),
- Fight Global Warming calculator (http://www.fightglobalwarming.com/carboncalculator.cfm),
- Green Mountain Energy calculator (http://www.greenmountain.com/green-mountain-energy-company-store),
- Green Progress calculator (http://www.greenprogress.com/carbon_footprint_calculator.php),
- the calculator of National Forest Foundation (http://www.nationalforests.org/conserve/carbon),
- Nature Conservancy calculator (http://www.nature.org/greenliving/carboncalculator/?src=112),
- the calculator of Pacific Gas and Electric Company (http://www.pge.com/myhome/environment/calculator/),
- Safe Climate calculator (http://www.safeclimate.net/calculator/),
- Terra Pass calculator (http://www.terrapass.com/carbon-footprint-calculator/; http://www.terrapass.com/business/email.html).

Almost all of these calculators can be used in English only; the only exception is the calculator of Carbon Footprint which can be accessed in most of the European languages. The filling in of these calculators takes from 2-3 minutes to approximately 10 minutes. Amongst the calculators there are business, personal, and event calculators as well. The questions asked by most of these calculators mainly concern with the household, and the transportation habits. It can be a problem that there are calculators that can only be filled in by using Anglo-Saxon units of measurement, so it's worth looking over these before. It can also be a problem that in some cases registration and a valid e-mail address are required.

Amongst the special calculators there are some rather interesting ones like: Carbonfund – wedding calculator, a shopping calculator on the site of Warwick

University, the Happy Planet Index (HPI) calculator that offers some recommendations whose adoption help to improve the calculated number.

The detailed presentation and the internet access of these calculators can be found in the fifth issue of the Sustainability Brochures.[17]

Since then the most significant carbon footprint calculators can be accessed on the website of CG & Partners too: http://cgpartners.hu/?tart=szoveg&id=20&lang=hu&menu_id=11. We presented the results concerning the calculaturs in 2009 during the two days long conference of KÖVET Association for Sustainable Economies. (http://www.kovet.hu/view/main/275-1247.html)

[17] Sustainability Brochure V., Downloaded:http://cgpartners.hu/aas_szoveg/file/185_elektronikus_okologiai_es_karbonlabnyom_kalkulatorok__fenntarthatosagi_fuzetek_v.pdf (July 13, 2012)

The ecological footprint of Győr (Sustainability Brochures, special issue)

The special issue of the Sustainability Brochures shows the ecological footprint's calculation of Győr and the Széchenyi István University.

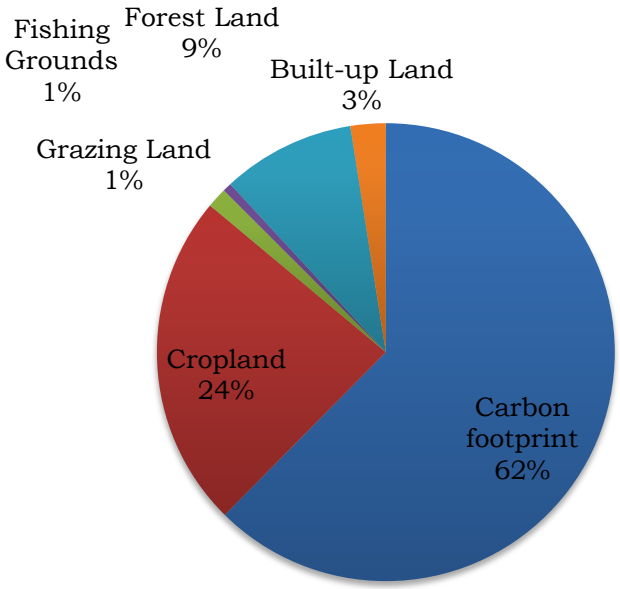
The calculation of the ecological footprint of the city of Győr

In theory the size of the ecological footprint should not exceed the biological capacity of the given area, because this means an unsustainable lifestyle. But in practice the aspects of sustainability are often overshadowed. This is why it's important to examine the relation between these two indicators in the case of Győr.

To calculate the ecological footprint of the city, at first it was essential to collect the required data and select the appropriate method of calculation. The study of the Best Foot Forward organization, made in 2002, which involved the calculation of London's ecological footprint, served as a model. The secondary data collection started in May, 2010 with the help of the regional directorate of the Hungarian Central Statistical Office. The equation for consumption formed the basis of the calculation of the ecological footprint: **Consumption = Production + Imports – Exports.** The collection of the data required for the calculation of the components of the equation was helped by various organizations (Kisalföld Volán, Transportation Faculty of the Széchenyi István University, the Hungarian Central Statistical Office, Máv, and GYSEV). The collection of data had finished by September, 2010. The processing of the data was done with the use of the method, and with the consent of Global Footprint Network.

The analysis shows that in reality the infrastructural and built-in area of the city is the biggest, while the cropland contributes the most to the sustainability of the city, and the carbon footprint makes up the biggest part (62%) of the ecological footprint of the Győr.

Diagram 8: The structure of the ecological footprint of Győr



Source: Sustainability Brochure special issue, (p. 10.), downloaded: http://cgpartners.hu/aas_szoveg/file/164_gyor_okolabnyoma__fenntarthatosagi_fuzetek_kulonszam.pdf (July 16, 2012.)

The size of the carbon footprint is mostly due to two sectors, the transportation and the energy sectors. „The total ecological footprint of Győr is 564.417 global hectares, which is 17 times bigger than the bio-capacity of 31.900 global hectares of the city.

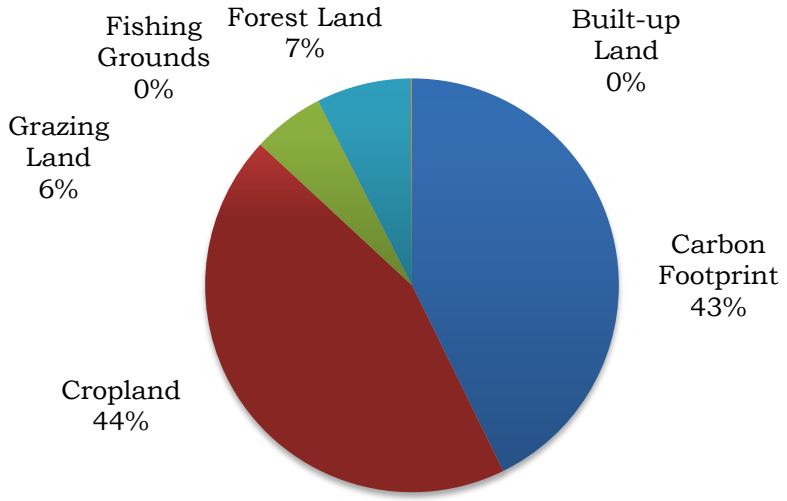
The characteristic unit of measurement of the ecological footprint is global hectare/capita, so the footprint of the city has to be displayed in proportion of the population of 130.476 people. According to this, the ecological footprint of every single citizen of Győr, living inside the administration area, is 4, 33 global hectares/capita. If the population of Earth followed this lifestyle, 2, 4 Earths would be required to sustain this."[18]

[18] Sustainability Brochure special issue, (p. 14.),

The calculation of the ecological footprint of the Széchenyi István University

The data required for the calculation of the footprint of the university were provided by the Main Economic and Technical Directorate of the University. „The structure of the footprint of SZE does not follow the database of GFN, but it is based on the structure of the MS Excel model used at the calculation of the ecological structure of the VIII. National Business and Case-study Competition."[19]

Diagram 9: The structure of the ecological footprint of Széchenyi István University



Source: Sustainability Brochure special issue, (p. 17.), downloaded: http://cgpartners.hu/aas_szoveg/file/164_gyor_okolabnyoma__fenntarthatosagi_fuzetek_kulonszam.pdf (July 16, 2012.)

The analysis of the results show that the proportion of the carbon footprint is smaller than in the case of Győr, this is because the college students don't travel home during the week. The compensation of this appears in the value of the cropland indicator. The per capita ecological footprint is 1, 81 global hectares, which is the same as the global value, and it's a sustainable number.

Downloaded:http://cgpartners.hu/aas_szoveg/file/164_gyor_okolabnyoma__fenntarthatosagi_fuzetek_kulonszam.pdf (July 16, 2012)

[19] Sustainability Brochure special issue, (p. 16.),

Downloaded:http://cgpartners.hu/aas_szoveg/file/164_gyor_okolabnyoma__fenntarthatosagi_fuzetek_kulonszam.pdf (July 16, 2012)

Equivalent of Országos Pénzügyi és Esettanulmányi verseny

Considering these results there are various possibilities for improvement, for example: the development of an environmentally conscious approach, the reduction of downtown traffic, incentives to use public transportation, the creation of more green areas, etc.

Since then the eco-footprint group has calculated the Happy Planet Index (HPI) of Győr as well, where the data of the ecological footprint calculation were used too. Because the HPI is the quotient of a number calculated from life expectancy and satisfaction with life, and the ecological footprint. On a scale of 100 the researchers obtained a value of 44, 1, which is closest to the result of Italy (the HPI index of Italy is 44, 0). In summary it can be said that the people of Győr – while their environmental load is bigger than the Hungarian average – live more happily than the average Hungarian, and the positive side of the happy years outweighs the negative side of the environmental load.

VI. Useless products vs. conscious buying (VI. Sustainability Brochure)

The sixth issue of the Sustainability Brochures series deals with useless products and conscious buying, the behavior to follow.

Conscious buying

The study of responsibility towards the environment is increasingly important nowadays. The consumer can act responsibly by buying responsible products. The following products can be responsible:[20]

- those produced in an environmentally sound – only slightly stressing the environment – manner,
- those whose trade produced reasonable revenue for its producers as well,
- those that are local, or produced closely to the point of sale.

These kinds of products are ecological products as well, whose attributes are regulated by law, they have EU eco-labels in the European Union, and in Hungary the trademark of Biokontroll Hungária helps their recognition. Also the Fair Trade movement plays an important role in establishing a responsible consumer behavior, and whose main aim is to enable the producers of the Third World to get reasonable revenue for their products. A Hungarian buyer can be a responsible buyer the most easily by buying Hungarian products, because this way helps the local economy, and, the shorter transportation routes are the lower the CO_2 emission is. Nowadays thanks to the globalization and the use of international standards there are many similar products, and this increases the time dedicated to shopping, the buyer always looks for better alternatives, which causes a pitfall situation. The other characteristic phenomenon is that the eco and bio-products have become status symbols.

Useless products

The useless products are those ones whose buying is always a bad decision. The main problem with these products is that a lot of resources were used during their production, and quite often they immediately end up becoming garbage. The wasted

[20] Sustainability Brochure VI, (p. 4.), Downloaded:http://cgpartners.hu/aas_szoveg/file/214__tudatos_vasarlas__fenntarthatosagi_fuzetek_vi.pdf (July 13, 2012)

resources could be used for more useful purposes. It's hard to determine what makes a product useless, but there are certain aspects whose consideration helps that decision. These aspects are the following:[21]

- those that travel a lot, and can be bought closer to us,
- over packaged products.
- the collision of form and function,
- useless function,
- harmful products,
- homemade junk.

But because of the subjectivity of uselessness, the prohibition or filtering of these products is surely not possible, at least until we reach the Pareto-optimum with the exchange of products.

Alternatives beyond the conventional market

A solution like this is the so-called "kaláka", which is basically a system based on the normal exchanging of products. A wider version of this is the Local Exchange Trading System (LETS), which is basically a "kaláka" network. Since the nineteen-eighties onwards many systems like this has been created around the world. A good summary of the systems created since can be found on the page of Complementary Currency (http://www.complementarycurrency.org), where three Hungarian organizations can be found as well:[22]

- the Bakonyi CsereKÖR,
- the Kékfrank voucher system of Sopron,
- the „KÖR" of Szolnok.

The advantages of the system are the following:

- it helps people get things they require, but otherwise can't afford,
- much more personal,

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[21] Sustainability Brochure VI, (p. 12-13.), Downloaded:http://cgpartners.hu/aas_szoveg/file/214__tudatos_vasarlas__fenntarthatosagi_fuzetek_vi.pdf (July 13, 2012)

[22] Sustainability Brochure VI, (p. 27.), Downloaded:http://cgpartners.hu/aas_szoveg/file/214__tudatos_vasarlas__fenntarthatosagi_fuzetek_vi.pdf (July 13, 2012)

- it helps the development of everyone's expertise or behavior,
- creates social relations,
- it shows people that the talent inside them do have a much bigger value.

As an alternative solution there are charity shops, where for the donated things we can get things that are useful for us. Also worth mentioning is the freeganism, whose essence is the withdrawal from society and living by recycling garbage.

Since then the executive of CG & Partners Kutató és Tanácsadó Ltd, Dr. Cecília Szigeti and Dr. Anita Borzán, associate professor at the Szent István University, has produced a study together about the alternatives beyond the conventional market solutions. The authors describe four alternatives beyond the conventional market which, through the handling of excessive waste, caused by useless products, move the society towards the Pareto-optimum, and this way offering solutions to the handling of certain forms of unemployment and deprivation. The study was published with the title „Magyarország társadalmi-gazdasági helyzete a 21. század első évtizedeiben" in the volume about the, Kautz Gyula Memory Conference on June, 15, 2011. [23]

[23] The study can be accessed: http://kgk.sze.hu/images/dokumentumok/kautzkiadvany2011/kulonleges%20piacok/Szigeti_Borzan.pdf

VII. Corporate size and responsibility (VII. Sustainability Brochure)

The seventh issue of the Sustainability Brochures series presents the connection between corporate size and corporate social responsibility (CSR).

The Green Paper of the EU, 2001 describes the CSR (corporate social responsibility) as a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. .[24] The application of the concept has numerous benefits for the company, like for example the increase of the employees' faith and motivation, and also the increase of financial efficiency. The question is the following: what's the relation between the application of CSR and the company's success? There are three different opinions about this:[25]

- the socially more responsible companies are more profitable,
- it's the profitability that motivates companies to adopt corporate social responsibility policies, and only those are active at this area, that are more profitable,
- there is an interactive, mutually positive connection between social responsibility and profitability.

It's important to examine corporate responsibility because nowadays the companies have the biggest influence on the people's lives. Corporate responsibility occurs at different levels, from the most common economic responsibility level through the increasingly less narrow legal, ethical and special individual responsibility levels. But in reality the ethical level is often overshadowed. To avoid this it's important to apply the ideas of CSR in practice, and this way place the values of life ahead of financial values. Looking at the international regulation it can be stated that many agreements concerning social responsibility and sustainable development have been adopted, with Hungary taking part in most of them. The corporate application of CSR philosophy in Hungary only started in the late nineties, and the government's

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[24] Sustainability Brochure VII, (p. 2.), Downloaded:http://cgpartners.hu/aas_szoveg/file/231___vallalati_meret_es_felelosseg.pdf (July 13, 2012)

[25] Sustainability Brochure VII, (p. 4.), Downloaded:http://cgpartners.hu/aas_szoveg/file/231___vallalati_meret_es_felelosseg.pdf (July 13, 2012)

first laws concerning CSR has been appearing since the middle of the last decade. The most wide-spread CSR strategies in Hungary:[26]

- university and research scholarships,
- selective waste collection,
- the use of alternative energy sources,
- the fight against labor market inequalities (e.g. sexual and ethnical differences),
- quality assurance,
- team building programs,
- the support of sport and cultural programs.

It's obvious that bigger corporate size means greater responsibility, but the question is on what basis the companies can be ranked. Because there is no universal indicator for this purpose, the collective examination of different indicators (revenues, balance sheet total, and number of employees) is required. After the examination it can be stated that there are companies which are, in terms of employment and financial numbers, more significant than even some cities and countries as well. The companies' responsible behavior can be examined from the aspect of how they strive for responsible investments. Nowadays there exist socially responsible investments, (SRI). In essence this means that certain companies (those that consider aspects of environmental protection, equality of opportunity and quality insurance) are preferred, and certain other companies or sometimes entire sectors (alcohol, tobacco, war industry, gambling sector and sometimes sectors in connection with abortion and stem cell research) are excluded from investment targets. It's interesting that a contrasting strategy has also appeared which prefers sectors excluded by SRI's. An important concept in connection with corporate social responsibility is "best practice" which refers to methods and practices that have been successful and can be adapted. It's characteristic of the concept that it's not concerned with the size and basic activity of the company, but with its relation to its inner and outer environment. However it is important to note that a company can only be considered socially responsible if it involves environmental and philanthropic aspects in its corporate strategy."[27] In connection with these, various

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[26] Sustainability Brochure VII, (p. 14.),
Downloaded:http://cgpartners.hu/aas_szoveg/file/231___vallalati_meret_es_felelosseg.pdf
(July 13, 2012)

[27] Sustainability Brochure VII, (p. 27.),

competitions and prizes have been established in Hungary as well, like for example the title ”Truly Responsible Company”, “CSR Best Practice” title, “Business Ethics Prize” or “the Green Frog prize”.

Since then the executives of CG & Partners Kutató és Tanácsadó Ltd., Dr. Cecília Szigeti and Gábor Mészáros in collaboration with Dr. Anita Borzán, the associate professor of Szent István University, have published a study about corporate responsibility and corporate size in the magazine Perspective Tudományos és Kulturális Folyóirat,[28] year XV. Issue 17, 2011.[29]

Downloaded:http://cgpartners.hu/aas_szoveg/file/231___vallalati_meret_es_felelosseg.pdf (July 13, 2012)

[28] A Hungarian scientific and cultural journal

[29] The study can be accessed: http://cgpartners.hu/aas_szoveg/file/209__oldal.pdf

VIII. The ecological footprint of China (VIII. Sustainability Brochure)

The eighth issue of the Sustainability Brochures series examines the ecological footprint of China and its regional differences.

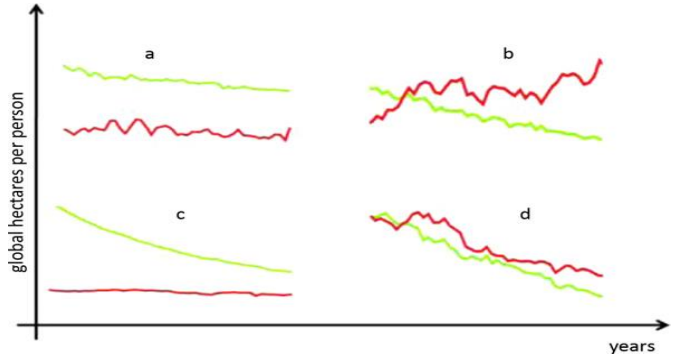
Before investigating the ecological footprint of China it's fundamental to examine the country's economic and social characteristics, its change in time, and its recent history. China is the fourth biggest country of the world, with an area of 9, 6 million square kilometers, and the most populous with 1, 34 billion people. The number of population shows a constant increase, which reaches its peak in 2030, and parallel with it there is a strong urbanization too. The Chinese civilization is the oldest in the world, it created advanced inventions even in the ancient ages, and the current People's Republic of China exists since 1949. The rise of China started in the nineteen-seventies, and since then many economic and partly political reforms have been implemented, due to which nowadays annual economic growth rates reach around 10%. The biggest part of the population is concentrated in the valleys of the Yangtze and Yellow Rivers. An east-west developmental gap is characteristic of the country, where the western part has become more advanced due to historical and geographical reasons. This is altered a bit by the development of the northwestern region Xinjiang, so a China divided in three parts can be observed.

The ecological footprint of China

„According to the database of Global Footprint Network the size of the global ecological footprint (ecological footprint, EF) increased by 14% between 1961 and 2007, by analyzing the per capita biological capacity and ecological footprint between 1961 and 2007, four main trends have been established: parallel (a), scissors (b), wedge (c) and descending (d) development trends.

The ecological footprint is marked by red, the biological capacity by yellow color."[30]

Diagram 10: Development trends



Source: Sustainability Brochure VIII, (9. o), Downloaded: http://cgpartners.hu/aas_szoveg/file/234___kinai_okologiai_labnyom.pdf (July 14, 2012)

China falls into the category "b", scissors, category, which is characteristic of the industrialized countries. The ecological footprint of China accounts for the 15% of the total, while its bio capacity only accounts for the 9%. Its per capita footprint is bigger than the global average biological capacity (2, 6 gha/capita), so it consumes more than its bio capacity provides. In the last half century China produced the biggest per capita GDP growth, which was accompanied by the drastic increase of the ecological footprint (+120%).

The regional differences of China's ecological footprint

„The size of the per capita ecological footprint (EF) is the biggest in northern and eastern China, while the per capita ecological deficit (ED) is bigger in southern and eastern China compared to other regions of the country. On the basis of this the biggest environmental problems could be expected in the eastern provinces."[31] According to this a connection between high GDP and the size of the ecological could be presumed. A following investigation examined whether a linear relation in pairs can be observed between EF, ecological capacity (EC) and ecological deficit

[30] Sustainability Brochure VIII, (p. 8.), Downloaded:http://cgpartners.hu/aas_szoveg/file/234___kinai_okologiai_labnyom.pdf (July 14, 2012)

[31] Sustainability Brochure VIII, (p. 12.), Downloaded:http://cgpartners.hu/aas_szoveg/file/234___kinai_okologiai_labnyom.pdf (July 14, 2012)

(ED)."[32] According to the investigation done by using various statistical methods it can be established that "there is no significant relation between ecological footprint and ecological deficit, and between ecological footprint and ecological deficit on a provincial level. Three clusters can be separated, and the categorization into clusters is based on the ecological footprint and the ecological deficit. A group with a stable structure forms, which is unvarying irrespectively of the method of cluster analysis. On a provincial level the connection observed in national temporal level cannot be found, that is to say that that the regions with the higher specific GDP do not inevitably have the bigger ecological footprint. Nonetheless only the most developed, traditionally industrialized regions – with the exception of Shaanxi – fall into the stable group with the big ecological footprint."[33]

The two researches expert in this topic Dr. Cecília Szigeti and Dr. Anita Borzán will present their study about the evolution of China's ecological footprint in the next issue, in 2012, of the magazine Gazdasági Élet és Társadalom, which was presented as well in May, 2012, during the conference of VEAB.[34]

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[32] Sustainability Brochure VIII, (p. 16.), Downloaded:http://cgpartners.hu/aas_szoveg/file/234___kinai_okologiai_labnyom.pdf (July 14, 2012)

[33] Sustainability Brochure VIII, (p. 22.), Downloaded:http://cgpartners.hu/aas_szoveg/file/234___kinai_okologiai_labnyom.pdf (July 14, 2012)

[34] Hungarian magazine Gazdasági Élet és Társadalom, which means Economy and Society in English.

IX. The reliability and comparability of the databases of the ecological footprint calculation on a national level. (IX. Sustainability Brochure)

The ninth issue of the Sustainability Brochures series is about the reliability and comparability of the databases of the ecological footprint calculation on a national level.

The ecological footprint (EF) is a quite well-known indicator, but little is known about its difficulty and criticism. „According to the main concept of the ecological footprint's calculation, the indicator consists of six land use categories: cropland, grazing land, fishing grounds, forest, built-up area and land for carbon absorption. It takes the total consumption by land use categories, and then, with the use of equivalence factors (EQF), it converts them into areas of world average productivity, global hectare. The equivalence factors are changed slightly from year to year but their magnitude is constant."[35] There are numerous critics concerning the method of the ecological footprint's calculation. One is that it doesn't take into consideration the method of land usage (whether it's sustainable or not). The other involves the consideration of the energy land's different emissions. There are other criticisms about the calculation of the ecological footprint on a national level too.

„The consumption's ecological footprint on a national level is determined by revising the production with the difference of the imports, and the exports by products.

$$(1)\ EF_C = EF_P + EF_I - EF_E$$

If a single country's footprint is calculated, the quotient of production (P) and the national average (Y_N), the average production, should be revised not just with the EQF factors, but with the yield factors (YF) as well.

$$(2)\ EF_P = \frac{P}{Y_N} \cdot EQF \cdot YF"[36]$$

The criticism is about whether it makes sense to examine single country's sustainability, because the national boundaries are results of long geopolitical and

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[35] Sustainability Brochure IX, (p. 2.), Downloaded:http://cgpartners.hu/aas_szoveg/file/239_nemzeti_szintu_okologiai_labnyom_szamitas_megbizhatosaga.pdf (July 14,2012)

[36] Sustainability Brochure IX, (p. 4.), Downloaded:http://cgpartners.hu/aas_szoveg/file/239_nemzeti_szintu_okologiai_labnyom_szamitas_megbizhatosaga.pdf (July 14,2012)

cultural processes, and in the majority of the cases they cut apart interconnected ecosystems. Considering these aspects the main question is whether countries can be arranged into groups according to the structure of their ecological footprint.

A cluster analysis was carried out, by using the 2010 database of GFN, to answer this question. The first analysis was done by using five variables (excluding the cropland footprint) of the ecological footprint. The cluster analysis, excluding the outliers, did not provide a satisfactory result. The second analysis was done with the use of the grazing land, fishing ground, and forest footprint variables. The hierarchical cluster analysis done with the other independent trio, excluding the outliers (Mongolia, Uruguay), provided a similar result. In the case of using five clusters, three clusters were identical according to the two methods. „After examining the stable clusters it can be seen that the following countries got into the second cluster: Botswana, the Central African Republic, Chad, Lesotho, Mali, Namibia, Niger, Somalia, Sudan, Swaziland, Belgium, the Netherlands, Argentina, Brazil, Columbia, Paraguay Peru and Venezuela. The third cluster contains Gambia, Mauritius, and Norway, and the fourth one contains Mauritania, Australia and Bolivia."[37] After this a cross table analysis was done by involving the income variable. It can be established that the clusters are strongly heterogeneous according to income levels; only one cluster makes an exception. During all three of these examinations Mongolia and Uruguay were part of the outliers, this is because their grazing land footprint is hugely different from the average. It's interesting that the cluster analysis of the ecological footprint has shown that the structure of the ecological footprint of Norway and Mauritius is extremely similar, despite these countries' other differences.

[37] Sustainability Brochure IX, (p. 12.), Downloaded:http://cgpartners.hu/aas_szoveg/file/239_nemzeti_szintu_okologiai_labnyom_szamitas_megbizhatosaga.pdf (July 14,2012)

In the basis of the examination it can be established that “about-average numbers are typical of the majority – 112 out of 150 – of countries, that is to say that we can draw good conclusions about the structure of the ecological footprint of certain countries by looking at the structure of the average ecological footprint. But there are certain small member groups whose structure is greatly different from the average.”[38]

The article of Dr. Cecília Szigeti, which will appear in the magazine Polgári Szemle[39], will present in detail the further results of the research.

[38] Sustainability Brochure IX, (p. 17.),
Downloaded:http://cgpartners.hu/aas_szoveg/file/239_nemzeti_szintu_okologiai_labnyom_szamitas_megbizhatosaga.pdf (July 14,2012)

[39] Polgári Szemle means Civic Review in English

The coming issue (Sustainability Brochure 10.)

The CG & Partners Ltd. plans to publish its next publication in August, 2012, which will collect the free internet games concerned with environmental protection.

The possibilities provided by the internet should not be overlooked by people involved in environmental education. Because one of the aims of our publications is shaping attitudes as well, we try to fulfill this by collecting environment games. The publication will not only contain the location, and description of these games, but our volunteer testers' opinions as well, this way helping those who would like to try these games.

Brochure catalogue

Sustainability Brochure I.: http://cgpartners.hu/aas_szoveg/file/73_.pdf

Sustainability Brochure II., http://cgpartners.hu/aas_szoveg/file/74_.pdf

Sustainability Brochure III.,
Letöltve:http://cgpartners.hu/aas_szoveg/file/108_kutatas_az_okologiai_labnyom_ismertsegerol__fenntarthatosagi_fuzetek_iii.pdf

Sustainability Brochure IV.,
http://cgpartners.hu/aas_szoveg/file/129_munkahelyi_egeszsegfejlesztes_a_csr_tukreben__fenntarthatosagi_fuzetek_iv.pdf

Sustainability Brochure V.,
http://cgpartners.hu/aas_szoveg/file/185_elektronikus_okologiai_es_karbonlabnyom_kalkulatorok__fenntarthatosagi_fuzetek_v.pdf

Sustainability Brochure VI.,
http://cgpartners.hu/aas_szoveg/file/214__tudatos_vasarlas__fenntarthatosagi_fuzetek_vi.pdf

Sustainability Brochure VII.,
http://cgpartners.hu/aas_szoveg/file/231___vallalati_meret_es_felelosseg.pdf

Sustainability Brochure VIII.,
http://cgpartners.hu/aas_szoveg/file/234___kinai_okologiai_labnyom.pdf

Sustainability Brochure IX.,
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Sustainability Brochure special issue:
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