

Global Warming in relation to Corporation Ethics

April 21, 2005

Keti Topi

Professor: Dr. Randal Franz

Course: Business Ethics

Spring 2005

Table of Contents:

Introduction.....	3
An Overview of Global Warming.....	4
The Kyoto Protocol.....	6
The Role of Corporations.....	9
Preventions.....	12
Personal View and Conclusion.....	14
Bibliography.....	16

Introduction

Over the last decade the whole world has been concerned about global warming; an issue that is being more and more significant for the future of all countries. Everyday we watch news about greenhouse effect, oil companies affecting badly the environment, protests from environmental-friendly NGOs, the growing emissions of carbon dioxide in the atmosphere, the melting of the Arctic Ice etc. Some people believe that such issues have begun in the 20th century, but their beginning dates the 1700s, with the industrialization era. From that time on, the industrializing countries have been burning fossil fuels such as oil, natural gas and coal to produce energy in their industries. The industries themselves have produced goods that need fossil fuels again, such as almost all means of transport and heavy machines used in factories. “Oil has meant mastery throughout the twentieth century”, has said Daniel Yergin, *The Prize*¹, which makes us clear the key role oil has had in this development. Burned fossil fuels release some of the same gases that trap heat in the atmosphere, including carbon dioxide. These atmospheric gases have risen to levels higher than at any time since the Ice Age Era², which cause a higher global warming than it would be caused naturally from the greenhouse effect³. The effect of these processes leads to damage of the environment and huge climate changes that affect us all indirectly. Countries have started building strategies to decrease the amount of emissions in the air, by putting international standard laws. The main international conferences organized in the last decades are: the Montreal Protocol adopted in 1987, where most nations agreed to stop reducing the manufacture of CFCs⁴; the UN Framework Convention on Climate Change in 1992, which outlined cooperative efforts to limit global warming and was

¹“Greenhouse Gangsters vs. Climate Justice”, <http://corpwatch.org/article.php?id=1048>

² Greenhouse Effect, Encarta 2004, © 1993-2003 Microsoft Corporation. All rights reserved.

³ Greenhouse Effect (or Climate Change, Global Warming) = the capacity of certain gases in the atmosphere to trap heat emitted from the Earth’s surface, thereby insulating and warming the Earth. Without the thermal blanketing of the natural greenhouse effect, the Earth’s climate would be about 33 Celsius degrees (about 59 Fahrenheit degrees) cooler —too cold for most living organisms to survive. Encarta 2004, © 1993-2003 Microsoft Corporation. All rights reserved.

⁴ CFCs stand for Chlorofluorocarbons, dangerous chemical substances that cause the break-down of the Ozone Layer. Encarta 2004, © 1993-2003 Microsoft Corporation. All rights reserved.

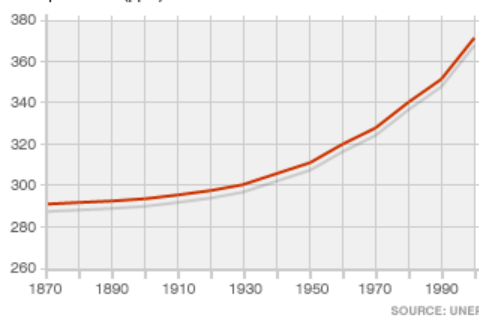
accepted by 160 countries. The Third Conference of the same program followed in December 1997, in Japan, where more than 160 formally adopted the Kyoto Protocol⁵. That problem was with Russia and later US, who both refused to apply its regulations in their countries. Now only US is not a member of the Kyoto Protocol. That makes a big problem because the US not only has the most powerful and developed industry in the world, but it contributes also a very large amount of carbon dioxide emissions in comparison to the other developed countries.

The most attacked corporations concerning global warming are those that produce burning fuels, cars and electronic devices such as, BP, Exxon Mobil, Motorola, General Motors, GE, DaimlerChrysler, Shell, Ford, BMW and so forth. The reason is, of course, the huge impact they have on the increased amount of carbon dioxide in the atmosphere.

A proposal for the companies would be to have the right to sell and buy credits from other companies, which can afford the costs to decrease the carbon dioxide amount less than needed.

A key role in this issue has also the consumers because businesses can stop working, if they protested against them, or just not buy the non environmental products.

Global concentration of CO₂ in the atmosphere
Parts per million (ppm)



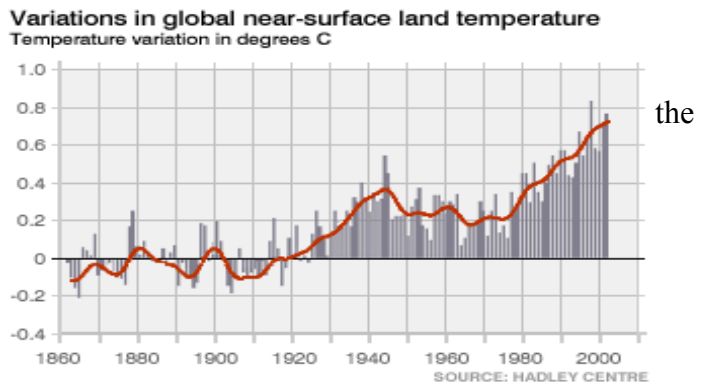
An Overview of Global Warming

There is a chain of processes that cause global warming and make it be a cause for other negative results. The chain begins with industrialization, a revolution that on one hand, developed parts of the world quickly and increased the living standard, and on the other hand, couldn't be valued as ethically acceptable concerning the greenhouse effect. The next link of the chain is the pollution of the air from the greenhouse gases, in which carbon dioxide is the most spread gas. As it is seen from the

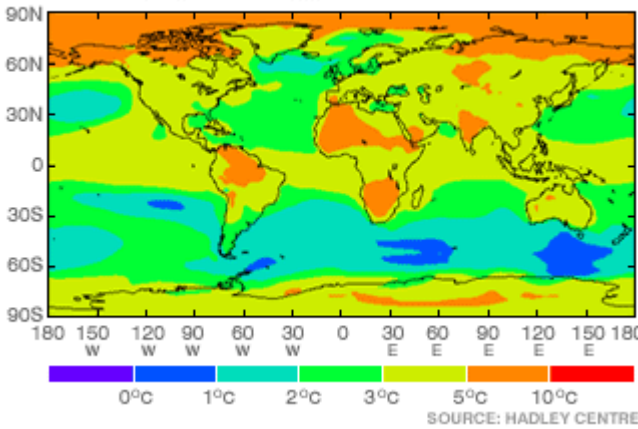
⁵ General information is taken from "Air Pollution", Encarta 2004, © 1993-2003 Microsoft Corporation. All rights reserved. The 160 countries might only have signed it officially, but not ratified it practically.

graph, during the last three decades of the 20th century, the concentration of carbon dioxide in the atmosphere has increased more than 80 parts/million, which is a very huge amount and the curve is still going up. This causes variation of the temperatures. According to the International Panel on the Climate Change (IPCC), the 1990s was the warmest decade on record. This is better shown in the following graph:

All this amount of carbon dioxide trend continues by causing the global warming. It is predicted that greatest rises will be in northern Polar Regions, India, Africa, and parts of South Africa. The warming of the Arctic areas would



Predicted change in average surface air temperature
Period: 1960-1990 to 2070-2100



cause floods in the costs, dryness in other areas, fires from hot temperatures, serious health problems in hot, dry regions or huge difficulties for the next generations to live in higher temperatures with a heavily polluted air. Such predictions of the future could make the Hollywood film “The day after tomorrow” become true.

In a BBC Website there is an interesting Eco-quiz⁶, in which you can discover amazing facts. E.g. for each mile a jet flies, one pound of carbon dioxide is released in the atmosphere. A return flight from London to Delhi would emit 1.5 tones per passenger, which would take two trees 99 years to counter the effect of this trip. What about the whole flights made during a day in the whole world? Maybe there are not enough trees on the earth to cover that damage. Another example is one person taking the train for a year

⁶ <http://newsvote.bbc.co.uk/1/hi/sci/tech/3915245.stm>

rather than driving a car would, which could reduce the carbon dioxide emission total by 2.9 tones. What about a billion of people that surely use cars every day?

The Kyoto Protocol⁷

General Overview

One of the most discussed issues since 1997 is the Kyoto Protocol. That is an international treaty on global warming. The 141 countries that have ratified it, where US and Australia still have not ratified it, have to reduce their emissions of six greenhouse gases, including carbon dioxide, or engage in emissions trading, if they want to maintain or increase emissions of these gases⁸. The Kyoto Protocol required 35 industrialized nations to reduce emissions of the gases by an average of five percent below 1990 levels by 2008 to 2012⁹. After the ratification of Russia in 2004, the agreement came into force on February 16, 2005¹⁰. Some targets to achieve are: 8% reduction for the UN, 7% for the US, 6% for Japan, 8% for Australia, 10% for Iceland, and 0% for Russia. For country members that fail to meet their obligations, fines will be set; starting at €40/ton of carbon dioxide in 2005, and rising to €100/ton in 2008.

Emissions Trading

One of the Protocol's principles is that developed countries have to pay climate-related projects and studies to other countries. Countries, whose limits are set above their current production, have emissions credits that can be purchased by other countries on an open market. For example, Russia easily meets its targets, and can sell off its credits for millions of dollars to other countries that don't meet them yet. This system rewards the countries that meet their targets, and provides financial incentives to others to do so as soon as possible. Countries also receive credits "clean energy" programs and "carbon dioxide sinks" in form of forests and other systems to remove carbon dioxide from the

⁷ The text is mainly adapted from: http://en.wikipedia.org/wiki/Kyoto_Protocol

⁸ From "Kyoto Protocol Ratification",

http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf

⁹ <http://www.cei.org/gencon/003,04404.cfm>

¹⁰ http://en.wikipedia.org/wiki/Kyoto_Protocol

atmosphere. In April 2001 the Netherlands purchased credits for 4 megatons of carbon dioxide emissions from Poland, Romania, and the Czech Republic.

Positions of countries

The Kyoto Protocol has had also revisions. In 2000, the Conference of Parties tried to resolve some opened issues in Hague, but failed to reach an agreement between the UN and the US, Canada, Japan and Australia on the other hand.

Russia ratified in November of 2004 (7 years after the meeting in Kyoto). The advantage of the former Soviet Union countries is that in 1990 the economies of most of them collapsed and so did their greenhouse emissions. Therefore, the current emissions levels of Russia are below its targets, and now it can benefit from selling emissions credits to the other countries in the Kyoto Protocol. On the other hand, in February 2005, the Russian President's aide, Andrei Illarionov said in the UK Conference on Climate Change that by 2050, Russia must reduce the volume of the carbon dioxide emissions by 90% compared with the year 1990, which makes Russian economic potential be reduced by 70% compared with its current level. He warned that the GDP and the personal income levels would drop by 2.5-3 times¹¹.

The UN has been one of the most major supporters of the Kyoto Protocol. Current EU projections suggest that by 2008 the EU will be 4.7% below 1990 levels.

The US has neither ratified, nor withdrawn the Protocol. According to an economic analysis released in July 1998 by the Clinton Administration, the implementation costs for the Kyoto Protocol would be reduced 60% from many estimates, as well as demonstrated a large decline in GDP from implementing it. President George Bush indicated that his administration doesn't support the treaty because it doesn't require effort from all the countries. He gave China as an example; that country is the second-largest emitter of greenhouse gases in the world and is entirely exempted from the requirements of the Kyoto Protocol. Their approach was in fact, to be consistent with long-term goal of stabilizing greenhouse gas concentrations in the atmosphere. In an

¹¹ http://en.rian.ru/rian/index.cfm?prd_id=160&msg_id=5377079&startrow=1&date=2005-02-04&do_alert=0

article, the Competitive Enterprise Institute congratulated US and Australia for not ratifying the Protocol. The director of Global Warming and International Environmental Policy Myron Ebell argued that the costs of the policies required by Kyoto would far outweigh any potential benefits. He continued by saying that Americans and Australians would be healthier, wealthier, and better able to deal with future environmental challenges. He added that China, India and other major countries agreed with the Bush Administration that the only workable solution will be long-term technological transformation of the global energy sector¹².

Australian Prime Minister John Haward argued that the Protocol would cost them jobs, and that the country was already cutting the emissions.

Canada has a confusing position in the Protocol. Its major trading partner is the US, and Canadian companies fear of trading on a fair trading ground after the Protocol. If a Canadian company sells natural gas to the US and it is burned there to produce electricity, that gas is not subject to “Kyoto Tax”. If the same were operated in Canada, the same electricity produced would cost more than in the US.

Opposing views

There have been two opposing groups concerning it. Hon John Gummer, a former British environment secretary, calls the agreement “the only game in the town”¹³ because Kyoto is for him the catalyst for this change. He also sees the opposing position of US inconvenient because the rich countries have actually caused the global warming, and this challenge was among them; that could make the developing countries join in response. He mentions China as a positive example of developing in cleaner ways. On the other hand, America produces 25% of the world’s pollution with only 4% of the world’s population. If the US doesn’t agree on the protocol, they will lose out to European suppliers working within the Kyoto system, he points out.

¹² “United States and Australia Dogde Kyoto Bullet” by CEI Staff, February 14, 1004.

<http://www.cei.org/gencon/003,04404.cfm>

¹³ <http://newsvote.bbc.co.uk/1/hi/sci/tech/3932947.stm>

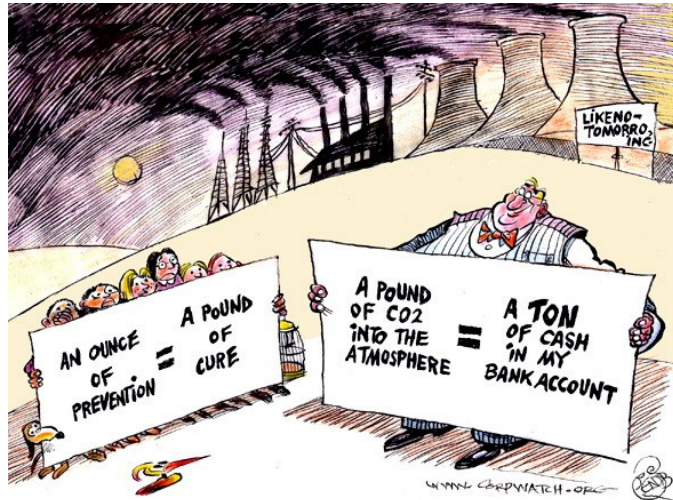
In contrast, the opposing countries claim that Kyoto is a scheme that retard the growth of the industrial democracies or transfer wealth to the third world, which is a global socialist initiative; it is “purely political”; some critics say that it will prevent or damage economic growth; other claims that the Kyoto impact is likely to be very small; economically seen, if the industrialized countries cut their demand for fossil fuels, the demand-supply law would tend to cause the world prices for coal, oil and gas go down, making them more affordable for poorer countries, which can increase fuel use. Recent scientific challenges have been to plant “Kyoto forests” or plantations to reduce carbon dioxide output.

The Role of Corporations

Corporations have the most delicate relation to global warming, especially the ones that use fossil fuels as their source of energy or as fuel for their products. Some of them such as, Exxon Mobil, Ford, GE, GM, and Johnson & Johnson are ranked in the first 10 places on the 500 largest US business’ chart¹⁴. Strangely enough, these companies and other car companies have also the first places as causers of global warming through emitting of huge amounts of carbon dioxide in the atmosphere.

¹⁴ “500 largest US businesses” Source: Copyright © 2003, Hoover’s, Inc., Austin, Texas.

EXXON MOBIL¹⁵ engages in oil and gas trade. The company operates in 118 countries with the names Exxon, Esso, and Mobil. Amazing numbers have come out of a study on it. In January 2004, Exxon Mobil was responsible for 5% of the greenhouse gases. Since it began in 1882, the company's oil and gas productions have released 20.3 billion tones of carbon dioxide into the atmosphere. A reaction in 2001 was the protest of 3000 people in the Esso filling stations in the UK, who recommended consumers to boycott Esso because of the opposition on the Kyoto Protocol. This is one of those steps that can really make the mass of people conscious of the situation and can catch the media's attention, whose presence also help for informing



them in detail. In 2003 protestors of Greenpeace accused CEOs of using corporate influence and money to block agreements that would reduce global warming pollution. The protestors are sometimes extreme in their judgments but this assumption could be true, according to the enormous profits the company has. Other activists claim that the company is using a multi-million dollar campaign to confuse the public and policy makers about global warming. If this is true, it would be a shame for this company, because with so much money, they could have implanted devices against the production of carbon dioxide emissions. For these reasons, Multinational Monitors named Exxon Mobil as one of the “10 Worst Corporations of 2001”. Exxon's emissions are 50 % higher than their competitor's. Exxon Mobil said that the emissions may be caused by an increase of flaring¹⁶ of gas in Nigeria. On one hand, Exxon Mobil was cited for its contribution of \$100 million to the Global Climate and Energy Project, but on the other hand, it will spend \$100 billion on oil exploration. Is this company really trying to help environment, when it expands its investments on profiting personally and influencing on the global damage of the atmosphere?

¹⁵ <http://www.responsibleshopper.org/basic.cfm?cusip=30231G>

¹⁶ Flaring= when natural gas is extracted simultaneously with oil and burned off straight into the atmosphere. This is considered illegal in most countries. Microsoft Encarta 2004

This is not the only “dirty” company in the world though. According to Shell’s 2000 Annual Report, SHELL PETROLEUM Development Corporation¹⁷ operating in Nigeria burns one billion cubic feet of natural gas into the air each day. It is tremendous how badly this phenomenon contributes to the atmosphere. The good news is that Shell has met the targets set up by the Kyoto Protocol by 1998. Its aim is continuing to reduce gas emissions from its own operations by 2010, and providing the customers fuels with lower carbon content, as well as offering renewable energy sources.

Other substances can also pollute the air heavily. FORD Corporation¹⁸ for example, was asked in 2001 by state attorney general to remove mercury switches from their vehicles due to the toxic persistent nature of mercury and its vapors. Currently there are 200 tons of mercury in cars and trucks on the road, according to an estimation of Environmental Defense’s Clean Car Campaign. The solutions that Ford was willing to take were: recalling at least 50,000 Ecoline vans as a result of emission-control violations, paying \$2.5 million in civil penalties and spending other \$5.3 million on environmental programs, by focusing on fuel efficiency of its entire fleet of vehicles, and also willing to donate \$25 million to help launch a center that will enable businesses be kinder to the environment. Concerning its car models, Ford announced it would add Mercury Mariner Hybrid SUV to its hybrid vehicles in 2007, and that it was working on e research related to hydrogen-powered vehicles. To mention is the development of the P2000 concept car, which will work with a parallel hybrid system.

Nuclear industries such as GE¹⁹ can also be a huge danger for the nuclear emissions released in the air. In a nuclear meltdown of GE for example, there is 90% chance that radiation from its designed reactors would be discharged into the atmosphere. GE still has the license, although the US Regulatory Commission is aware of the problem. On the other hand, GE is taking also the possible precautions against the emissions. The company doesn’t only invest money on health care programs, but also on solar and wind

¹⁷ http://www.responsibleshopper.org/research_all_detail.cfm

¹⁸ <http://www.responsibleshopper.org/basic.cfm?cusip=345370>

¹⁹ <http://www.responsibleshopper.org/basic.cfm?cusip=369604>

power, as well as higher-efficiency appliances and turbines. Moreover it is collaborating with Sensicast Systems on a \$6 million project for the U.S. Department of Energy for increasing the energy efficiency of American industry by developing low-cost wireless sensor networks and systems to improve the efficiency of electric motors, which use 2/3 of US energy. Concerning global warming GE has guaranteed \$175 million over 10 years to Stanford University to create a Global Climate and Energy Project. The final step of GE would be reducing its emissions by 25% per dollar of revenue from 2003- 2008.

Many other corporations, mainly based in the US and partly in West Europe and Japan, are facing the same environmental problem of throwing gas emissions into the air and are now trying to remedy it with costly projects, research etc.

Preventions

Of course, it is difficult to prevent such an issue that has developed in this stage, but in every situation it is possible to find at least one solution. Here can help the governments with their politics, companies, consumers, NGOs, media etc.

One way for the governments could be the using less electricity from thermal sources, which need coal and oil to generate electricity and consequently produce the greenhouse gases, and more from environmental-friendly sources such as, hydroelectric, geothermal, solar, or wind sources. According to statistics of the Microsoft Encyclopedia Encarta 2004, which are estimated in 2001, many of the developed countries use thermal and nuclear sources rather than the other more ecological sources. This is especially seen in countries such as US with 71.44% of the energy coming from thermal sources, Libya with 100%, Australia with 90.81%, China with 80.19%, Italy with 78.57% etc. Countries, which use also nuclear sources, apply less of the thermal one, like Russia, or Germany, but they still use more 50% of nuclear energy. Other developed countries such as Canada or Austria make exceptions because they mainly make use of the hydroelectric sources. Finally, countries in development such as Albania or Korea use less than 5% of thermal sources and mainly, the hydroelectric ones. This way of prevention is mentioned in the

article of CEI²⁰, in which he thinks this is the only workable solution. Governments can also prohibit the people several days a month, not to use diesel cars. Only hybrid cars could be used during those days. This can be kind of advertising for non-diesel means of transport. Another form could be the prohibition of trucks or mopeds, which is applied also in Italy and some other EU countries.

Companies can be called the main cause of greenhouse effect, but can become the main solution too, as far as the consumers become conscious of what is happening around them. Most of them cannot change their structure so fast, because their profits can decrease- no company wishes that itself-, and they have to experiment by producing new hybrid cars with a competitive price, which is also a risk for them. In the script²¹ with means of transport, used in the Technical University in Vienna, tens of different models are presented for cars, buses and trucks. Those models, which were projects ready to use since the 70's, had batteries, bicycle-like systems, chemical reactions of hydrogen and oxygen, hybrid systems of reduced diesel with hydrogen etc.

The consumers have a key role on this problem. They are the mass and are able to make drastic changes. The example of the Eco-quiz on page 4 gives automatically a solution: the people should not only protest against car companies that use diesel as burning fuel, but also should try to use more environmental-friendly means of transport when possible, such as, trains, buses, trams, bicycles, going on foot etc. If they live in distanced areas, a solution could be to use the hybrid cars or the models that protect the air pollution from carbon dioxide.

Another problem is occurring: very old diesel cars of West Europe or other developed countries are sent to less developed countries. E.g. Albania can be called "The land of Mercedes"; 90% of the cars used are old Benz Mercedes cars that pollute the air maximally. Of course, the local people would be more directly damaged, but still all the preventions and the efforts done will not have too much impact, if the diesel means of transport are transferred somewhere else and not put totally out of use.

²⁰ <http://www.cei.org/gencon/003,04404.cfm>

²¹ "Elektrische Strassenfahrzeuge", by Univ. Prof. Dr. E. Rummich. Technische Universitaet Wien, 2004.

The media has a key role to advertise the hybrid car models or new energy sources for companies to use. In a daily Viennese newspaper, there was recently an article about some environmental- friendly cars that work with natural gas. Their motors produce up to 25% less carbon dioxide and 50% less carbon monoxide, both gases that cause the greenhouse effect. There are 3.5 million cars in use all over the world and the number is growing, thank consumers and media of launching them. Additionally, with the newest models one can travel 50% cheaper than with the ones working with benzene and 25% cheaper than the diesel car. In Austria, the authorities in cooperation with Wien Energie are working on implementing gas station all over the country²².

Personal View and Conclusion

This is a problem that has continued for so many decades that it has turned global now. People have caused it through industrialization, but now it has shifted to a political war of words. This is actually how I see the Kyoto Protocol. I like the effort of the nations to create a preventive system of the greenhouse effect, but I think this is the wrong way to do it. The governments should have a secondary position on the issue. The first that should begin to do something, are the big corporations that release the greatest amount of the emissions in the air. They should create new technologies and systems to transform their industries into ecological ones. Here can governments play a helpful role. I don't like for example the positions of countries in the Protocol. Now Russia can earn millions of dollars from western countries, while the latter don't really do anything to prevent the emissions in the air by spending that money. I think the impact of emissions trading would be very small for the environment, while some countries, like Russia, can become wealthier just like that. What if Russia uses all the money to implement nuclear centers, which also damage the environment, but are not included in the greenhouse gases? The country would proceed well legally, but de facto would damage more the atmosphere. On the other hand, the money used for purchasing credits could be used to plant trees. This is a simple, but practical idea for the situation. The Kyoto Protocol is good, but it has the

²² "Erdgasautos starten jetzt so richtig durch", on page 8 of Wien Heute, Nr. 148, April 6, 2005

wrong procedures and rules in it. One condition could have been to plant a certain surface of woods within a certain time for all the countries, depending on the damage they make. Who would say no to planting trees? Even Russia that wouldn't need to, would do that because it is never bad to increase the greenness of the country. This is something that millions of dollars can make it true in one day. Of course, trees need a long time to grow, but if we face the reality, eight years have past since the meeting in Kyoto and the treaty still hasn't begun working properly, with the consensus of all the industrialized countries. Furthermore, as the UN is a major supporter of the Protocol, it wouldn't allow the bad environmental conditions that are happening in Eastern Europe. With its budget, it could have helped the air pollution in some countries there decrease drastically. The best example is Albania, with such a small geographical surface, but the air pollution is ten times higher than the norm (at least the UN could have sent some anti-gas masks!!), caused by bad infrastructure and release of gases from very old cars.

The governments don't really follow the rules like they should. The GE case explains it better: it has caused such damage to the atmosphere and it was still licensed to work, although the US Regulatory Commission is aware of that. I disagree also with the words of the Prime Minister of Australia when he says, "Americans and Australians would be healthier, wealthier, and better able to deal with future environmental challenges." It is true that they can become wealthier, but healthier not for sure because we all breathe the same air and the global temperature increases more everywhere.

The solution would come first from the companies. Ray Anderson, the chairman and founder of Interface Inc. pointed out that better in an interview. He said that the only way corporations could work to make their profits gradually and at the same time, protect the nature by not producing waste, was following nature self-organizing systems and change the schemas, on which the company works. He went on by saying that the structure of production must have the form of a continuous cycle²³.

It is the same what has happened throughout the history. All the wars, conflicts, problems, everything could have been prevented on time, but too much time is wasted with words and little is done. This case should be taken very seriously because it affects

²³ "Nature and the Industrial Enterprise", www.isye.gatech.edu, Spring 2004

all of us, and in the near future, it can cause disastrous results to the environment. The only way to achieve this “goal” is a tight cooperation among businesses, governments, media and common people. Only then can the world “breathe” and the ecological systems of nature can return healthy again.

Bibliography

“500 largest US businesses” Source: Copyright © 2003, Hoover's, Inc., Austin, Texas.

© 1993-2003 Microsoft Corporation. All rights reserved.

“Air Pollution”, Encarta 2004© 1993-2003 Microsoft Corporation.

“Chlorofluorocarbons” Encarta 2004, © 1993-2003 Microsoft Corporation. All rights reserved.

Eco- quiz: Energy efficiency - how do you measure up? 23 July, 2004.

<http://newsvote.bbc.co.uk/1/hi/sci/tech/3915245.stm>

“Elektrische Strassenfahrzeuge”, by Univ. Prof. Dr. E. Rummich. Technische Universitaet Wien, 2004.

“Erdgasautos starten jetzt so richtig durch”, on page 8 of Wien Heute, Nr. 148, April 6, 2005

“Greenhouse Effect”, Encarta 2004, © 1993-2003 Microsoft Corporation. All rights reserved.

“Greenhouse Gangsters vs. Climate Justice”, by Kenny Bruno, Joshua Karliner & China Brotsky, November 1st, 1999. <http://corpwatch.org/article.php?id=1048>

reserved.

“Kyoto Protocol”, Wikipedia. http://en.wikipedia.org/wiki/Kyoto_Protocol

“Kyoto Protocol Ratification”,

http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf

“Nature and the Industrial Enterprise”, Spring 2004.

www.isye.gatech.edu/eemag/pdfs/20041Spring.pdf

“Russia should denounce Kyoto Protocol immediately”, February 4, 2005, London.

http://en.rian.ru/rian/index.cfm?prd_id=160&msg_id=5377079&startrow=1&date=2005-02-04&do_alert=0

“United States and Australia Dodge Kyoto Bullet”, by **CEI Staff**, February 14, 2005.

<http://www.cei.org/gencon/003,04404.cfm>

“Viewpoint: Kyoto - the only game in town”, by Hon John Gummer, Former British environment secretary, July 29, 2004.

<http://newsvote.bbc.co.uk/1/hi/sci/tech/3932947.stm>,

“Global Warming Research”. http://www.responsibleshopper.org/research_all_detail.cfm