

The Business of Climate Change

A Paper by the Global Institute for Tomorrow

Introduction

The world has fundamentally changed. For good or bad, climate change is impacting the way that businesses operate. Corporations can no longer ignore the social or environmental impact of their activities nor can they hope to prosper based on thinking that looks no further than quarterly results. While policies and regulations and public scrutiny may push certain industries to pay attention, businesses that will truly survive in a carbon-constrained world will be the ones that recognize the challenges and respond innovatively and constructively by creating opportunities for themselves.

The purpose of this paper is to provide a background on what climate change is, how it is impacting the way corporations do businesses and more importantly, the business opportunities that are present for corporations that are flexible and innovative in their approaches to addressing climate change.

Background

What is climate change? Climate Change is the change in climate over a time period that ranges from decades to centuries and refers to both natural and human-induced changes. It has been a hot topic in the last decade as there is an emerging consensus on three broad points: that the earth is warming; that this is due in large part to mankind's emission of greenhouse gases (via use of fossil fuels for energy, heating and transportation primarily); and that there will be significant consequences for the earth's environment.

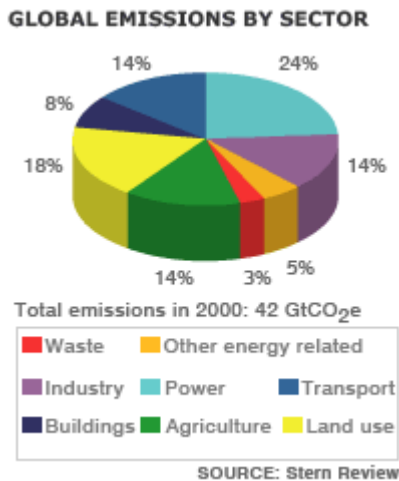
Scientists are still uncertain as to the scale and scope of effects that climate change will bring about. But it is clear that climate change has already had enormous impacts. In the last century, the earth has warmed by more than 0.6 degrees Celsius which has brought about melting of glaciers and ice caps, higher sea levels (conservatively predicted to be up by 1m by 2100) and more frequent and severe weather events such as flooding, droughts and wildfires etc. This has created negative consequences for hydrology and water resources; food and agriculture security; diverse water ecosystems; and human health. In addition, a major challenge is how to address the plight of millions of people who will be dislocated as a result of rising sea levels and other climate-change related phenomena.

The real economic costs of climate change are also unclear. However, the costs of not doing anything can be disastrous. *The Stern Review on the Economics of Climate Change*, commissioned by the UK government, forecasts that 1 percent of the world's GDP must be spent on tackling climate change immediately. The report warned that if no action is taken:

- Floods from rising sea levels could displace up to 100 million people
- Melting glaciers could cause water shortages for 1 in 6 of the world's population
- Wildlife will be harmed; at worst up to 40% of species could become extinct
- Droughts may create tens or even hundreds of millions of "climate refugees"

Why companies should care: the impacts of climate change on doing business

As a result of climate change, the world is changing faster than anyone expected. Not only is global warming bringing more intense weather patterns but the political and economic landscape is also being transformed more dramatically. Government policies and regulations as well as consumer or public scrutiny have and will continue to be key drivers in pushing corporations to pay attention to the social and environmental impacts of their activities.



In the past, particular sectors – automobile, energy (oil & gas, mining), building & construction – were more affected by regulation than others given their relative importance in contributing to greenhouse gas emissions. However, in the last several years, there has been a slow but steady transformation of a broad spectrum of companies and their CEOs who have been *proactive* –rather than *reactive* – to the challenges and opportunities brought on by climate change.

“Forget the science debate [regarding climate change],” says Cinergy Corp CEO, James E. Roger, “The regulations will change someday. And if we’re not ready, we’re in trouble.” His comment reflects an increasing trend whereby some corporations are moving several steps ahead of government and regulators in reducing their carbon emissions or footprint. This is partly out of a desire to

jump before being pushed as well as being opportunistic. Regarding legislation as imminent, some corporations also see the potential benefit of being able to shape new rules by being the early birds.

This change in attitude is reflected in the minds of an increasing number of CEOs who recognize that climate change is no longer a fringe concern. In the world of business and finance, climate change is evolving beyond PR department to become an increasingly central topic for strategic deliberation and decision-making by executives and investors around the globe. Yet it would be fair to say that while awareness is at an all time high, real action is still lagging.

Rather than being part of the problem, corporations can provide solutions in combating climate change. *The Stern Review* clearly stated that businesses could not continue to operate as usual. Emphasizing the special role that businesses could play in reducing emissions, the report believed that investments in cleaner energy and transport technology along with a more efficient supply chain would create a win-win for business. The report argued that these investments would bring about higher productivity from increased energy efficiency, new markets, jobs and exports from environmental technologies and products. In working alongside governments and international bodies, corporations can provide the leadership in harnessing ingenuity and technology.

The following sections present the 3 main arguments for how and why businesses should see climate change as an opportunity:

1. Long-Term Survival

While climate change may be a slow-moving force, its impacts are having corporations look long and hard at how they are operating. Increasing floods, droughts and other natural disasters exacerbated by global warming and over-consumption is creating a looming food security and energy crisis. As a result, the cost of doing business is increasing. Rising fuel and commodity prices are adding pressure for CEOs to address how their companies will adapt.

Case study: Swiss Re

The increase in frequent and severe weather events has affected the way insurance companies operate. In 2006 alone, insurance firms paid out \$15.9 billion in catastrophe-related claims, with natural disasters making up \$11.8 billion of these.

In response, the global reinsurance group, Swiss Re, have been calculating the impact of climate change on its business for the last ten years. As a reinsurance company, the company is taking an integrated approach to ensure it will have the ability to absorb the increasing costs of protecting against more consistent and severe cycles of natural disasters such as hurricanes, typhoons etc.

Swiss Re aims to seize climate change-related market opportunities by: launching new products such as the carbon markets' first insurance product for managing Kyoto Protocol-related risks and weather risk transfer products; investing in sustainable portfolios with an emphasis on efficient resource utilization (e.g. European Clean Energy Fund); providing protection against droughts for poor villages in Africa and; carbon trading.

As the shift away from fossil-based to more renewable energy happens, corporations will win or lose depending on how they adapt. Firms that will prosper in a climate-changed world will tend to be those that:

- are early to recognize its importance and take appropriate steps in advance;
- have good management structures and practices in place to ensure that management and employees are in line with policies; and
- invest in research and development which is implemented into appropriate investments

According to a McKinsey study, many companies in most sectors have profitable opportunities to save money by cutting energy consumption and green house gas emissions. In other words, it makes good business sense to invest in energy and cost-saving technologies that promote sustainability and abate climate change. The study indicated that a lot of companies can reduce energy consumption and emissions by 20-50 percent or even more while becoming more competitive to boot. However, the big question remains as to why so many companies have been slow to capitalize on these opportunities.

2. Business opportunities

Yet some corporations are aware and are beginning to recognize that there are clear advantages in reducing their emissions. An important trend is one of corporations increasingly spurred to reduce their emissions to gain a competitive and reputational edge over their competitors.

In the short-run, simple energy-saving measures such as providing better insulation or energy-efficient lighting can help to reduce a company's overhead expenses. In the long run, investing in smart technologies and cutting emissions can actually fatten the bottom line and create new business opportunities. As companies and households look for new low-carbon solutions, new industries and businesses meeting these needs will be the real winners. General Electric's Ecoimagination initiative is often cited as a success case. By launching a range of high-tech green technologies, including solar and wind, water purification and energy efficiency, the GE initiative has reported revenues of over £5billion.

Another area for huge business potential is carbon trading. Carbon trading is a way of reducing carbon emissions by using a regulated 'market' in emissions credits via a central authority (government or international body). If a company, for example, goes over the limit of the amount of pollutants it can emit, then they might buy credits from those who pollute less. By putting an economic value on the costs of polluting, proponents argue that it creates an incentive for companies to invest in greener technologies and other energy-efficient alternatives in the medium to long run to reduce emissions and hence, cost.

Case Study: Électricité de France (EDF)

Although it has been estimated that some •22.5 billion-worth of allowances were traded (equivalent to 1.6 billion tonnes of CO₂) last year, companies such as UK energy giant, EDF, are facing challenges and opportunities in the new carbon market.

As one of the earlier pioneers in the carbon market, EDF has made a commitment to reduce the carbon intensity of its electricity generation activities by 60 percent by 2020. To meet its objective, EDF is an active player in the trading industry with an annual allocation of around 100 million tonnes of carbon within the EU Emission Trading Scheme. It has also created a •300 million carbon fund to diversify its sourcing of CO₂ emission allowances by buying carbon credits from emission reduction projects worldwide.

However, rising energy prices, stricter government regulations and a volatile carbon market caused by an excess of available (and at times, worthless) credits has made it difficult to quantify the gains EDF has made from carbon trading. As the carbon market is still at its nascent stages of development, it will take time for the market and companies such as EDF to adjust.

There is a rapidly growing market for carbon trading as corporations seek to meet the requirements set out in the Kyoto Accord which was signed by 141 countries (excluding the U.S. and Australia) in February 2005 whereby countries agreed to reduce emissions to a certain level. Currently, the total value of the emission rights in the EU Emission Trading scheme are estimated at £40billion a year with only a fraction of that value being traded.

However, it should be noted that carbon trading is not a substitute for countries putting into place appropriate local laws, incentives and enforcement mechanisms to tackle climate change. Carbon trading is in its infant stages with trading companies unable to agree on the level of credits required for even the simplest offset calculations. Weak verification and enforcement structures have also led to widespread instances of companies and people buying worthless credits resulting in sharp criticisms about the credibility and value of credit and emission reduction schemes. Critics have also argued that carbon trading does not address long-term concerns as it does not fundamentally reduce emissions but rather encourages complacency and frees polluters of responsibility – usually by allowing them to purchase credits elsewhere – typically in developing countries.

In the coming decades, countries like China, India and Indonesia will be major sources of carbon credits as there is no shortage of areas where CO₂ emissions can be reined in. However, this will also create challenges. As India and China continue to develop at breakneck speeds, it has drawn harsh criticisms from the West regarding what they perceive as environmentally reckless growth coming from these countries. But this criticism ignores the reality that most of the CO₂ emissions triggering climate change have come from activities of the developed economies in the past century and that on a per-capita basis, the West still emits five times more emissions than those in developing countries. Therefore, the solution lies not in placing blame, though governments in developing countries do have a mandate of balancing sustainability and social objectives with economic growth.

3. Brand and Reputation Management

Arguably, one of the biggest factors that is pushing the issue of climate change into boardrooms is the growing appreciation that climate change and environmental issues are high on the minds of consumers around the world. Whether or not CEOs believe the science of climate change, they cannot ignore the high level of public scrutiny and the information that consumers can access with a click of a mouse. Nor can they afford to miss out on opportunities that can strengthen a company's reputation and thus, create a competitive edge over its rivals.

Trust then is critical. Consumer perceptions (whether true or not) do impact business. Different industries have to deal with increasing scrutiny about the materials they use, their supply chains and labor standards, many of which are in emerging markets such as China and India. For example, corporations such as

Unilever, Nestle and Proctor & Gamble, which account for a significant volume of global palm oil use, have come under fire for its activities in Indonesia. Critics argue that the expansion of oil palm plantations is not only leading to degradation of Indonesia's peatlands but that is further exacerbating global warming by releasing an estimated 1.8 billion tonnes of greenhouse gases (equivalent to 4 percent of the global greenhouse emissions).

The dilemma is that while the public is increasingly challenging governments and corporations to adopt sustainable practices, there is currently no common consensus on how to best achieve this. For example, biofuels – the conversion of basic crops such as corn and maize into fuel – has sparked heated debates. On one hand, advocates of biofuels argue that the use of biomass will ease climate change as biomass has a carbon-neutral life cycle. However, global food shortages has called into question the conversion of basic crops for fuel given it may be further exacerbating food security in many countries from Haiti to India where public protests against rising prices has become the norm.

Case Study: HSBC

HSBC, one of the world's largest banks, is working to integrate Corporate Social Responsibility (CSR) into its business objectives and operations. Recognizing that CSR will be a long-term driver of its success and survival, the bank aims to become a recognized leader in the industry.

To date, HSBC has focused many of its efforts on climate change and the environment. In 2005, it became the world's first "carbon-neutral" bank. In 2007, HSBC announced a US\$100 million programme to combat climate change by partnering with different NGOs such as the World Wildlife Foundation (WWF) on 4 major environmental initiatives including efforts to protect some of the world's major rivers – the Amazon, Ganges, Thames and Yangtze – from the impacts of climate change.

HSBC is also keen to seize business opportunities in line with its CSR policies. It has recently launched a number of products such as Socially Responsible Investment (SRI) funds, green technology products and green credit cards to differentiate itself in a growing market of concerned consumers. The bank has also looked internally to find ways to reduce its carbon footprints by involving top management and employees via volunteering activities, special training for management and investments in office energy-efficient schemes.

Therefore, companies are no longer simply bound by local laws and regulations but are accountable on a higher societal level. If consumer spending is impacted by whether or not they believe a company is being socially or environmentally responsible, corporations then have a huge incentive to create or strengthen that trust. What is apparent is that corporations may need to go beyond PR campaigns to win the hearts of consumers. Several surveys, including a survey by a leading British newspaper, the Guardian, have indicated that while

consumers generally have expectations that corporations should behave in a socially and environmentally responsible manner, many are skeptical about claims coming from corporations who they feel may be “greenwashing” about their activities.

Therefore, corporations need to take real action, particularly industries which are disproportionately impacted by consumer perception. For example, while the airline industry only accounts for 2 percent of global CO₂ emissions; it is often depicted as one of the main culprits. Conversely, the technology sector generally conveys a positive image because it allows people to communicate without using transport, thereby avoiding emissions.

Conclusion

There is a real business case for companies pursuing business opportunities in a carbon-constrained world. Companies that recognize and address the challenges regarding climate change and respond in a flexible and innovative manner will be the real winners in the new economy. But this will require leadership which means that CEOs and boards will need to recognize that business is an integral part of society, part of the problem and – crucially – part of the solution. From developing the appropriate technologies and carbon trading to internal energy-efficient schemes, savvy CEOs will be able to spring into a largely untapped market. However, real action must be taken, beyond talk and PR campaigns. The real challenge is whether CEOs have the knowledge and incentives to successfully navigate their way in this new arena.