

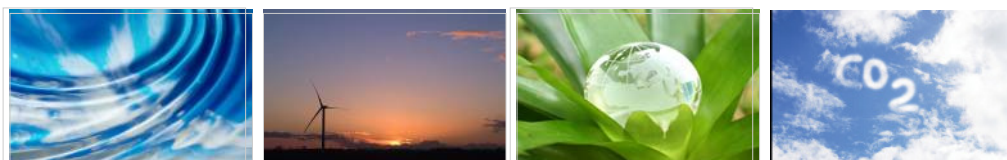
2009 CDP Forum in Taiwan

The Importance of Carbon Disclosure to Corporate Climate Change Strategy

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Content

- Introduction to ERM
- Risks and Opportunities of Climate Change
- Carbon Disclosure and Corporate Strategies
- Strategic Corporate Assessment of Needs (SCAN)
- Corporate Climate Change Strategy Development
 - Case Studies -
- Getting on the Path of Carbon Disclosure



Introduction to ERM



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Who Are We?

Global Outlook - Local Implementation



ERM Asia Pacific



- Over 30 years of experience
- Over 145 offices in 41 countries
- Over 3,500 professional staff
- ERM has a well-established reputation as one of the world's leading providers of environmental and sustainable development-related consulting services
 - ranked largest "all-environmental consultancy" in the world (ENR, July 2006, 2007)
 - Environmental Business Achievement Awards, 2008 for New Practice Area: Climate Change and Organizational Innovation: ERM's Knowledge Sharing Platform Minerva - Environmental Business Journal (EBJ)
 - Best Corporate Social Responsibility and Environmental Reporting Consultant: EDIE.net survey (2008)
 - Best Environmental Advisor of the Year for three consecutive years by Acquisitions Monthly (2004, 2005, 2006, 2008, 2009)
- Worked closely with over 60% of the Global Fortune 500 companies in the past 5 years
- Completed projects in more than 160 countries
- Annual turnover of US\$638.5m (FY08)

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Who do we work for?

- > 25% of the FTSE 100, 60% of the Global Fortune 500 in the past 5 years
- a leading advisor to government and NGOs: trusted and independent



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ERM Energy & Climate Change Services



- | | | | | |
|---|--|--|--|--|
| <ul style="list-style-type: none"> ✓ Risk & Impact Assessment ✓ Policy Analysis & Strategic Positioning ✓ Corporate Strategy & Communications (inc. Carbon Disclosure Project) | <ul style="list-style-type: none"> ✓ GHG Inventory Development ✓ Life Cycle Analysis ✓ GHG Data Systems (EMIS) ✓ GHG Data Monitoring | <ul style="list-style-type: none"> ✓ Emissions Reduction Projects ✓ Clean Development Mechanism (CDM), Joint Implementation (JI), VCS, Voluntary Offsets ✓ Offset Due Diligence ✓ Carbon Credit Management ✓ Carbon Capture & Storage | <ul style="list-style-type: none"> ✓ Energy Analysis & Reduction ✓ Green Building/LEED ✓ Alternative Energy | <ul style="list-style-type: none"> ✓ GHG Inventory & Reduction Verification & Certification ✓ Verification Readiness ✓ Report Assurance |
|---|--|--|--|--|

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Risks and Opportunities of Climate Change



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Climate Change is Happening....

- **Now a mainstream issue - stories about it are front page news**
- **Physical effects are already costing business billions, for example in 2007:**
 - **Hurricane Katrina - \$US75 billion**
 - **Hurricane Rita - \$US 9.4 billion**
 - **Floods in UK - £2 billion**



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Climate Change Risks

There are 4 types of climate change risk:

1. Competitive risks

- generated by a possible decline in consumer demand for energy intensive products
- rise in costs for energy intensive processes
- rise in costs for transportation fuels



2. Reputational risks from perceived inaction on climate change

3. Regulatory risks from tightening legislation

4. Physical risks from extreme weather events

- Asset damage
- Health and safety risks
- Project delays
- Crop damage
- Agricultural transition as certain crops no longer become viable in certain areas and new supply chains become necessary



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Understanding the potential impact

- **How will climate change impact my businesses?**
 - **What are the key climate change threats?**
 - **Where are the greatest climate change impacts?**
 - **What does that mean for my balance sheet? How big my reserves need to be?**
- **What climate change mitigation and adaptation options should be considered?**

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Carbon Disclosure and Corporate Strategy



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Why should company act on climate change?

- Acting on climate change can enhance brand/build staff pride.
- Consumers/suppliers are becoming more sensitive to climate change, which can impact the sales and market share.
- A firm's carbon footprint and climate change action plans are using as the differentiators to corporate reputation.
- The channels of communication include:
 - **Benchmarking with other companies (i.e. Carbon Disclosure Project)**
 - **Sustainability or CSR report**

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*Has your company developed emissions intensity targets?
If so:*

- a. Please state your emissions intensity targets.*
- b. Please state what reductions in emissions intensity have been achieved against targets and over what time period.*

If not, please explain why.

Carbon Disclosure Project (CDP6)
Questionnaire



And this is the easy question...

1 Risks and Opportunities

Objective: To identify strategic risks and opportunities and their implications.

a Risks: (CDP5 Question 1a)

- i Regulatory Risks:** How is your company exposed to regulatory risks related to climate change?
- ii Physical Risks:** How is your company exposed to physical risks from climate change?
- iii General Risks:** How is your company exposed to general risks as a result of climate change?
- iv Risk Management:** Has your company taken or planned action to manage the general and regulatory risks and/or adapt to the physical risks you have identified?

v Financial and Business Implications: How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?

b Opportunities: (CDP5 Question 1b)

- i Regulatory Opportunities:** How do current or anticipated regulatory requirements on climate change offer opportunities for your company?
- ii Physical Opportunities:** How do current or anticipated physical changes resulting from climate change present opportunities for your company?
- iii General Opportunities:** How does climate change present general opportunities for your company?
- iv Maximizing Opportunities:** Do you invest in, or have plans to invest in products and services that are designed to minimize or adapt to the effects of climate change?

v Financial and Business Implications: How do you assess the current and/or future financial effects of the opportunities you have identified and how those opportunities might affect your business?

Why Disclose?

- A company's current and potential success is not simply judged in terms of financial growth
- Carbon disclosure is part of a wider trend toward including more **non-financial information** into business reporting
- Large enterprise such as Dell, HP, Wal-Mart, GE have put a lot of pressure to their suppliers to fill out the CDP questionnaire.
- Companies proactive in terms of implementing comprehensive climate change programmes tend to provide better disclosure, and
 - Can be recognised as '**carbon leaders**'
 - Demonstrate their strengths against climate change impacts

Overall, CDP is one of the major drivers to let companies starting to look at their opportunities and risks

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Climate Change - the Business Imperative

“An analysis of FT500 reveals a 77% response rate, with 72% of questionnaire respondents now reporting Scope 1 and Scope 2 emissions, compared to 58% last year. It demonstrates that many positive steps have been taken by Global 500 companies over the past year.”

- Carbon Disclosure Project 6, Global FT500

- **If your business uses significant amounts of energy, involves transport and interacts with a lengthy supply chain, then climate change may well be a relevant issue.**
- **A practical response is to develop a **climate change strategy** to reduce impact.**

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Carbon Management Strategy



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Strategic Corporate Assessment of Needs (SCAN)



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Where should I focus my attention?

- **SCAN – Strategic Corporate Assessment of Needs**
- **To help you take a first look at climate change issues**
- **Self-assessment**
 - **Where are we now?**
 - **Where do we want to be in two years?**
- **Provides a quick “diagnostic”**
 - No right and wrong answers
 - Highlights initial views and where you might focus
 - A starting point for thinking about key issues

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SCAN Results...

Area / Issue	Score				
	1	2	3	4	5
A Measurement & Reporting	○	→			X
B GHG Inventory / Carbon Footprint		○	→	X	
C Governance			⊗		
D Strategy & Targets				⊗	
E Energy Use			○	→	X
F Regulation Watch		○	X		
G Impact / Risk Models	○	→			X
H Carbon Trading & Offset / Reduction Balance		○	→	X	
I Process Mapping	○	→			X
J Employee Programmes / Awareness				⊗	
K Customer & Product Programmes		○	→	X	
L Supplier Programmes		○	→	X	
M Capital Programmes			○	→	X
N External Communications & Disclosure			○	→	X

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Corporate Climate Change Strategy Development

- Case Studies -



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Climate Change Risks and Opportunities Assessment, British American Tobacco



- **ERM examine the potential risks and opportunities posed by climate change**
 - Methodology: ERM Tool for Opportunities and Risks from Climate Change (TORCH)
- **We focused on the climate change issues in the following aspects:**
 - Physical
 - Regulatory
 - Behavioural
- **ERM provided the British American Tobacco with detailed annual cost estimations for the identified hazards which were found to range between approximately **US\$100 million and US\$200 million per year** by 2020.**



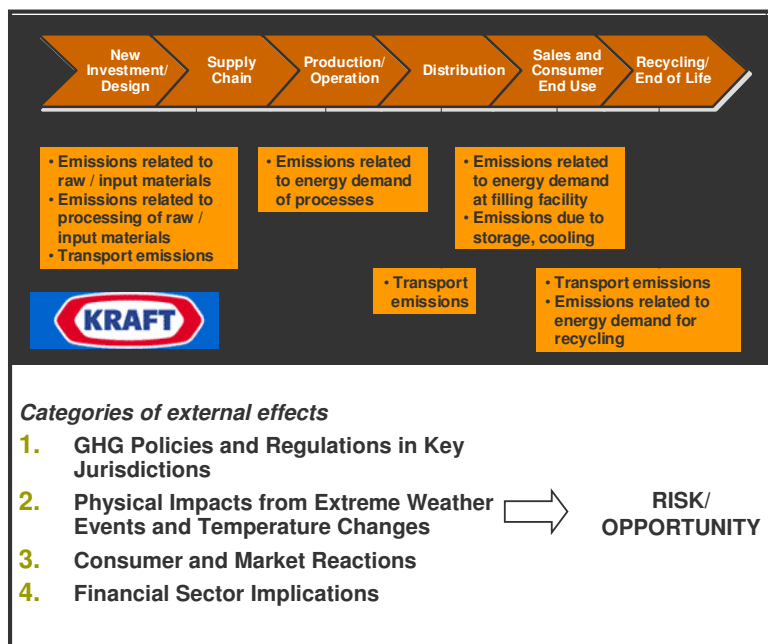
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Climate Change Strategy Assessment, Kraft

- ERM conducted a high-level assessment of the risks and opportunities across the value chain;
 - Related to climate change
 - GHG regulation
 - The options to address those risks and opportunities.
- This informed the scope for more detailed assessments and mitigation actions.



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Carbon disclosure and report assurance...

Assurance of carbon data in BSkyB's public report

- Report verification for B Sky B
- Heavy focus on greenhouse gas emissions
- The corporate report was one element of a major communications campaign around climate change that included offsetting and consumer engagement



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Getting on the Path of Carbon Disclosure



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Carbon Risks/Opportunities Exist Now

- **Every firm that ERM has assessed for carbon risk has had *material impacts* which affect bottom line; some were expected but needed *quantification*; many were unexpected (e.g., physical weather impacts, potential for market disruptions, supply chain impacts, ‘upside’ of carbon credit revenue)**
- **Assessment of climate change exposure must be specific to firm’s *sector, operations, markets, suppliers, infrastructure, investors & consumers.***
- **Assessment must be followed by strategies and GHG Management Plan tied to core business**

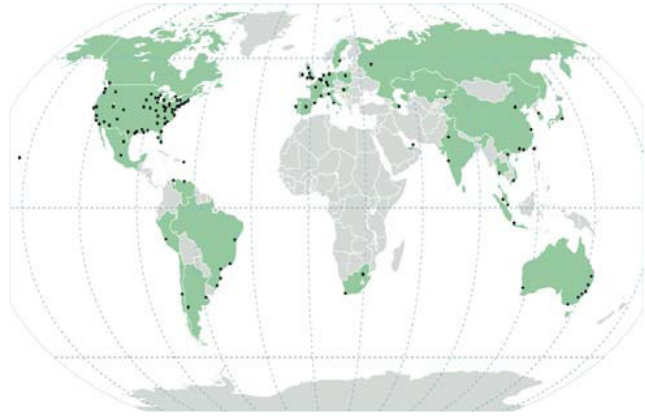
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ERM Survey of Carbon Emissions Reporting of FTSE50 Companies

- During August 2007, ERM undertook a survey of the FTSE50 websites to review what information was provided on carbon emission
- The survey researched information posted on each website with respect to the following criteria:
 - Total CO2 emissions
 - Units of disclosure
 - Scope of emissions reporting (direct, indirect and indirect other)
 - Quantifiable carbon reduction plans
 - Carbon intensity reporting
 - Evidence of external verification
 - Investment proposals



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Headline Findings

- **There is currently no standardised approach to web-based carbon disclosure**
- **For some companies there is a discrepancy between the quality of web site information and carbon disclosure elsewhere**
- **There is significant variation in the way companies report total carbon emissions**
- **Companies offer markedly different approaches to presenting carbon reduction targets**
- It is **difficult to compare** performance between companies in the same sector and across the FTSE50 generally

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Getting on the path of carbon disclosure (I)

- Ideally, companies beginning CDP participation should complete a GHG **emissions inventory** in the first year and **expect to improve it over time**.
- Some companies treat the first year as a scoping and planning exercise with more concrete data in year 2.
- Incomplete or imprecise responses do not look good.
- Joining CDP creates expectations that participants will ultimately analyse their **climate change risks and opportunities**, manage and communicate them.
- New venture to consider suppliers (Supply Chain Leadership Collaboration – SCLC) very important.

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Getting on the path of carbon disclosure (II)

- Credibility of CDP participation tied to seriousness of response submitted and demonstration of **improvement** in responding over time.
- After a couple of years, pressure likely to increase to achieve **Best Practice reporting** and **transparency**.
- **Supply chain** very likely to become more important.
- Ultimately, firms expected to demonstrate that they have **systematically** assessed their climate change risks and opportunities and have **meaningful plans** in place and part of core business to deal with them.

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Outlook with Economic Crisis

- **Compliance Schemes like Europe and others will continue**
 - Carbon Prices might fall in the short term, but new investments are medium and long term
 - If economy picks up, fossil fuel energy will get more expensive again and carbon prices rising
 - New Compliance Schemes like ANZ and USA will start
- **Physical risks**
 - Scientists already know today that we cannot achieve the UN +2 Degree Celsius target anymore, even when achieving all international targets
 - Physical risks for any investment may even increase dramatically as more than +2 C can be quite serious
- **Market risks**
 - As physical CC events increase, the public awareness re CC and CC labelled low carbon products will increase



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What ERM can do

- **Rapid assessment of approx footprint** from energy
- **Detailed footprint evaluation and KPI development**
 - Required for offsetting to become 'carbon neutral'
 - Help clients to minimise carbon risks, strengthen brand reputation and reduce costs
- **Interpret footprint results as basis for new carbon risk assessment and risk management** follow-on project
- **Help client with internal/external communication**
- **Advise on regulatory responses and carbon credit potential**
- **Analyse/help implement GHG reduction projects & crediting**
- **Provide on-going assurance & updates**

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Thank you!

若有任何問題，請與我們聯繫：

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