

Sustainability 2011
A difficult coming of age



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Introduction

Over the past four decades, sustainability has increasingly commanded the attention of business executives in many regions of the world. Growing numbers of companies are adopting socially responsible and environmentally conscious policies associated with a range of issues, such as climate change, water use, supply-chain management, responsible investment, equitable labor relations, and preserving resources and standards of living for future generations. Entrepreneurs are also applying creativity and innovation to the development of clean technologies that may yield startling increases in the productivity of the earth's resources and dramatic, broad-based improvements in living standards.

Efforts to document these changes have been formidable: Roughly 4,000 companies now produce sustainability reports using the framework developed by the Global Reporting Initiative (GRI), the most important voluntary standard-setter in the field. Global firms such as Walmart, Electrolux, P&G, Tesco, and many others have initiated new guidelines for suppliers to track their carbon footprint. Greatly increased attention is also being focused on areas like worker rights, transparency and anti-corruption initiatives, and other constituents of doing business in a sustainably profitable fashion.

The investment community has also taken steps to promote sustainability. In 2010, 784 investment firms with \$22 trillion under management—such as AXA Investment Managers, Goldman Sachs Asset Management and Partners Australia, TD Asset Management and UBS Global Asset Management—were signatories to the Principles for Responsible Investment (PRI), an investment initiative in partnership with the United Nations Environment Programme Finance Initiative and the UN Global Compact. Members are required to report their work in an annual survey. According to the PRI's 2010 survey of members, 54% now ask the companies they target for investment to respond to the Carbon Disclosure Project, and 40% ask investees to adhere to the GRI.

The Principles for Responsible Investment

These six principles for sustainable investing were launched by the UN Secretary-General at the New York Stock Exchange in April 2006. The investment firms agreed to:

1. Incorporate environmental, social and governance (ESG) issues into investment analysis and decision-making processes.
2. Be active owners and incorporate ESG issues into their ownership policies and practices.
3. Seek appropriate disclosure on ESG issues by the entities in which they invest.
4. Promote acceptance and implementation of the Principles within the investment industry.
5. Work together to enhance their effectiveness in implementing the Principles.
6. Report on their activities and progress towards implementing the Principles.

Source: Principles for Responsible Investment
<http://www.unpri.org/>



“We could have saved the Earth but we were too damned cheap.”

Kurt Vonnegut, Jr.

In its 1987 report *Our Common Future*, the World Commission on Environment and Development (commonly known as the Brundtland Commission) proposed a seminal definition of sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This concept is frequently cited as the basis for a definition of the more general term “sustainability.” More often than not, though, the public discourse on sustainability evokes a more casual idea: environmental “friendliness.”

Considering that the environmental and social issues that the Brundtland Commission sought to address have, if anything, grown more acute since 1987, a persuasive case can be made that contemporary discussions of “sustainability” should seek a renewed focus on what the Brundtland Commission called “the possibility for a new era of economic growth, one that must be based on **policies that sustain and expand the environmental resource base**” (emphasis added).

Similar attention should also be given to the Brundtland Commission’s hope for increasing levels of justice, security, health, and other social resources that are essential to human progress.

Despite these developments, market shifts and disruptions are making achievement of sustainable business models more difficult while making the issue more immediate. Surging industrial growth in emerging markets is placing heavy strains on the supply of commodities and other non-renewable resources. Similarly, the rise in income of vast populations in India, China, and other developing economies has heightened demand for the “privileged” lifestyle of the West. These emerging market trends are increasing the threat of depletion across an entire range of critical resources—not least of them the capacity of the planet to absorb greenhouse gasses and provide sufficient usable water. Meanwhile, environmental disasters, such as the ongoing destruction of Brazil’s rainforests, the “Great Pacific Garbage Patch”, and a succession of oil spills, continue to demonstrate the impact of human interventions on the environment.

The global economic crisis of 2008-10 slowed the “push” for sustainability in both the public and private spheres. For example, the Obama Administration’s efforts to shepherd a clean energy and climate bill through the Congress are all but abandoned for the remainder of this legislative session, and budget pressures caused the Environmental Protection Agency’s budget to be slashed by \$1.6 billion. Other environmental associations, such as the National Oceanic and Atmospheric Administration and the Clean Technology Fund, will also see substantial cuts in funding. The European Union, meanwhile, has cut some \$1.2 billion, or 1.4%, from its 2011 environmental budget. Emissions measures in Australia and Japan have paused and headed in another direction.

Many companies have been understandably cautious about investing heavily in sustainability-oriented initiatives, which have often been seen as cost-drivers rather than sources of new efficiencies or revenues. Even the strongest proponents of the sustainability agenda are consistently tasked with demonstrating compelling connections between sustainable business practices and increased economic success.

But perhaps the biggest impediment has been the vacuum of global strategic leadership. Governments, multilateral institutions, and the corporate sector have yet to agree on clear planet-wide goals. The public-private policy dialogue to promote sustainability and environmental protection has bogged down, and without clear guidance from governments, some companies feel no immediate pressure to change standard operating procedures. Yet a small number of passionately committed CEOs and other senior executives are searching energetically for ways of converting sustainable business practices into sustainable competitive advantage.

In this paper, Deloitte Touche Tohmatsu Limited (Deloitte) explores the state of play in sustainability from two perspectives: bottom-up, examining green investors and consumers; and top-down, examining policymaking from the point of view of incentives and regulation. Through this approach Deloitte seeks to understand how companies can best navigate choppy and uncertain waters—and set a course towards a sustainable future.

Does the invisible hand have a green thumb? Understanding green investors and consumers

Reportage on sustainability often proclaims the rise of “the green investor” and “the green consumer”—enlightened advocates of the environment whose economic choices drive the sustainability agenda forward. The growth in green investment funds and consumer spending on eco-friendly goods and services underscores the public interest in sustainability. Deeper analysis reveals that these stakeholders are not who you may think they are.

Growing green markets: the role of investors

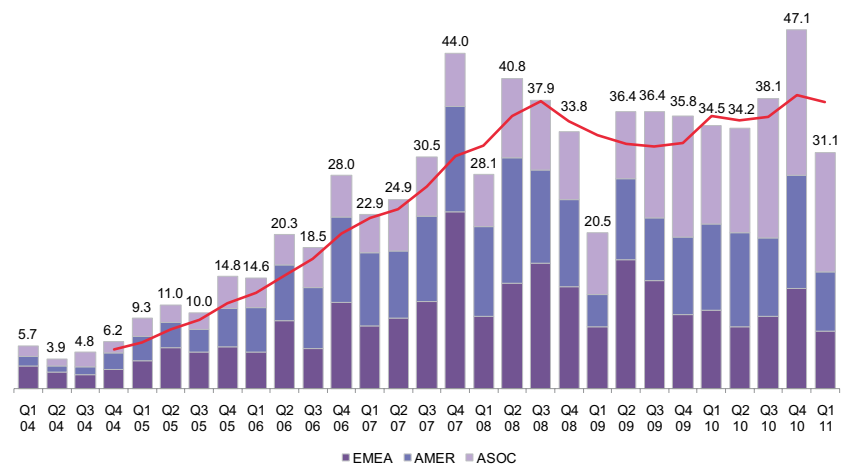
Socially responsible investment (SRI) has grown apace over the past decade. About \$3 trillion in the US alone—roughly 12.2% of the \$25.2 trillion in total assets under professional management—is committed to some form of socially responsible and sustainable investing, according to the Forum for Sustainable and Responsible Investment.¹

Shareholders, meanwhile, continue to use proxy resolutions to prompt additional disclosures around sustainability-related risks. The rise of social media and the ease with which investors can join forces around an issue also fuels this activity. Furthermore, campaigns to promote sustainable standards for corporate or project financing (Equator Principles², UN PRI) have successfully dissuaded many large investors from backing harmful projects. Nonetheless, companies that use environmentally problematic practices such as mountaintop-removal mining have, at least thus far, encountered little difficulty securing financing.

The introduction of several international sustainability indices, and their recent strong performance, further underline a change of mindset. The Dow Jones Sustainability Index has outperformed the MSCI World Index, a common measure of developed-country stock performance, in three of the last four years, and outpaced the Dow Jones Global Large-Cap Index in 2009.

Although the recession flattened financial investment from advanced markets, new investments from emerging markets, particularly Asia, have remained robust. Meanwhile, five multilateral development banks—the African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, and World Bank Group—have created the Climate Investment Funds (CIF), amounting to \$6.4 billion. With CIF support, 45 developing countries are piloting transformations in low-emissions and climate-resilient development.

Figure 1. New financial investment in clean energy by region



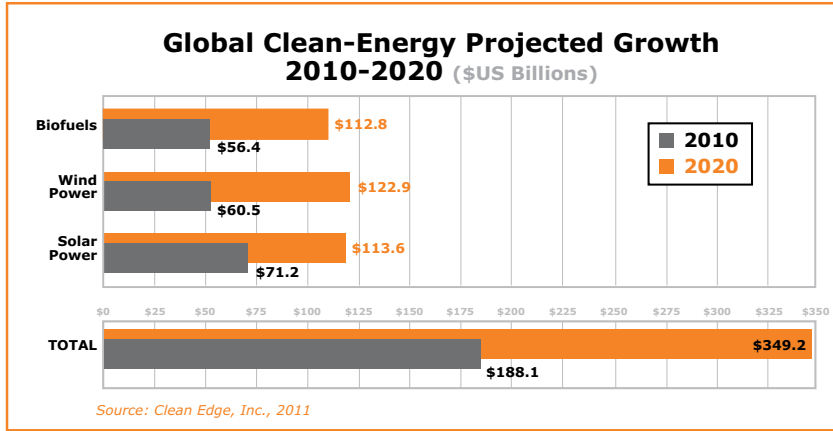
Note: Excludes corporate and government R&D, and small distributed capacity. Not adjusted for re-invested equity

Source: Bloomberg New Energy Finance

¹ According to The Forum for Sustainable and Responsible Investment, “Socially responsible investors include institutions, such as corporations, universities, hospitals, foundations, insurance companies, public and private pension funds, nonprofit organizations, and religious institutions.” <http://ussif.org/resources/sriguide/srifacts.cfm>

² The Equator Principles, a voluntary code now adopted by most major retail banks worldwide and an increasing number of the major investment banks (Bank of America, Credit Suisse and Mizuho are currently full members, and JPMorgan an associate member), are beginning to realize the goal of ensuring that all project financings of \$10 million or greater avoid creating negative social or environmental impacts from the macro to the community level at which they operate. Therefore, any company expecting to raise significant finance from the banking sector should expect growing scrutiny from lenders to prove that their development projects are sustainable. <http://equator-principles.com/>

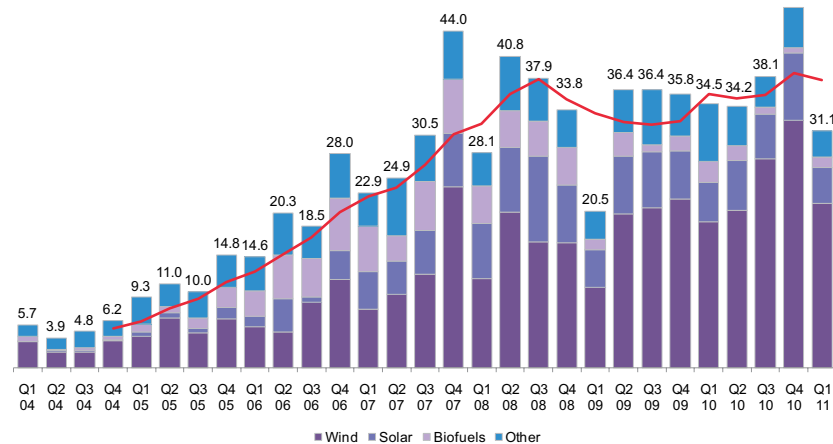
Figure 2. Global clean energy growth



The market for clean technology and renewables, meanwhile, witnessed a 30% increase in overall investments in 2010, to reach \$243 billion (from \$186 billion in 2009), according to the World Economic Forum.³ This is significant given declines in mergers and acquisitions activity and in foreign direct investment flows owing to the global financial crisis. Furthermore, according to research firm Clean Edge, in its report *Clean Energy Trends 2011*, in 2010 “combined global revenue for solar PV, wind power, and biofuels surged by 30.2% over the prior year, growing from \$144.5 billion to \$188.1 billion”.⁴

Global investment in renewable electricity generation, led by wind and solar, reached an all-time high of \$112 billion in 2008. Despite the economic downturn that followed, renewable energy remained broadly stable in 2009.⁵ Thanks to higher commodity prices, increased consumption in emerging markets, and technological advancements, the clean technology market is poised for sustained growth.

Figure 3. New financial investment in clean energy by sector



Note: Excludes corporate and government R&D, and small distributed capacity. Not adjusted for re-invested equity

Source: Bloomberg New Energy Finance

The global market size of the low-carbon and environmental goods and services market (LCEGS) was \$5.3 trillion (£3.2 trillion) in 2008/09.⁶ This represented year-on-year growth of roughly 4% that is expected to continue through 2015. The largest individual country markets were the US, China, Japan, India, Germany, the UK and France.⁷ The largest individual sectors are alternative fuels (17%), building technologies (12%) and wind energy (12%).⁸

³ World Economic Forum, *Green Investing 2011*, page 6. http://www3.weforum.org/docs/WEF_IV_GreenInvesting_Report_2011.pdf

⁴ Clean Edge, *Clean Energy Trends 2011*, page 2. <http://www.cleaneedge.com/reports/pdf/Trends2011.pdf>

⁵ International Energy Agency, *Energy Technology Perspectives 2010: Scenarios and Strategies to 2050*. <http://www.energyefficiencynews.com/I/3197>

⁶ UK Department for Business, Innovation and Skills, “Low Carbon and Environmental Goods and Services: an industry analysis. Update for 2008/09”, page 5. <http://www.berr.gov.uk/assets/biscore/business-sectors/docs/10-795-low-carbon-environmental-goods-analysis-update-08-09.pdf>

⁷ UK Department for Business, Innovation and Skills, op. cit., page 5.

⁸ UK Department for Business, Innovation and Skills, op. cit., page 5.

Assuming the LCEGS sector continues to grow in line with real global GDP, it will likely increase roughly 20%, to about \$5.7 trillion by 2015. By country, this translates to 3% to 3.5% per year in the US, 1.5% to 2% in the Eurozone, 1% to 2% in Japan, and 8% to 10% in China and India (based on forecasts by Oxford Economics).⁹ Under these assumptions, China and India's combined market share would rise from 20% to more than 23%.

Conventionally thought of as a top polluter, China has become one of the world's leading proponents of clean energy. Initiatives feature a 10-year, \$400 billion clean energy technology investment program and regional "low-carbon centers" to anchor clean energy technology manufacturing. Surcharges will offset the huge cost of replacing incumbent power generation (mainly coal) with more expensive renewable energy. Consumers can expect to pay 0.25% to 0.4% more for residential electricity; industrial users can expect to see 0.8% increases.¹⁰

Ground rules

Many aspects of the sustainability "conversation" are marked by considerable controversy – in itself not necessarily a bad thing.

For purposes of the present paper, however, an attempt has been made to eschew any partisan or tendentious views about what companies or governments should or should not be doing. The paper attempts only to present an accurate profile of the "state of play" around key aspects of the sustainability project.

Figure 4. Annual value of low-carbon and environmental goods and services in US\$ billions

	2011	2012	2013	2014	2015	Annual Average Growth Rate (in line with real GDP growth)
US	982	1,021	965	1,080	1,116	3.3
China	642	705	763	830	905	8.8
Japan	298	305	308	312	317	1.7
India	298	327	355	385	421	8.4
Germany	200	206	208	212	217	2.1
UK	167	173	175	179	184	2.6
France	145	149	152	155	158	2.0
Rest of the world	2,023	2,121	2,192	2,275	2,366	4.0
Total	4,755	5,005	5,118	5,430	5,685	

Sources: Oxford Economics Forecasts/INNOVAS

⁹ Oxford Economics Global Economic Model analysis

¹⁰ Pew Center on Global Climate Change, *Climate Policy Memo #8: The Growth of Clean Energy Industries Through Climate Legislation*, page 2. <http://www.pewclimate.org/docUploads/policy-memo-8-growth-clean-energy-industries-through-legislation.pdf>

At the grass roots: green consumers

Not long ago, a multinational firm faced with negative press on environmentally questionable sourcing could plead ignorance and suffer few adverse consequences, either from industry regulators or from their own customers. The age of social media, however, makes denial almost impossible. News is widely and quickly distributed around the world, with little sympathy for companies that claim to be unaware of environmental or social breaches deep in their supply chain.

Green consumers are no longer an inconsequential niche market. According to a November 2010 Harris Poll of 2,354 US consumers, 57% are making an effort to use less water and 33% are purchasing locally grown produce.¹¹ Waste reduction and recycling are also becoming consumer habits. According to the Organic Trade Association, US sales of organic food and beverages grew from \$1 billion in 1990 to \$26.7 billion in 2009.¹²

Yet partly because of economic conditions, consumers' buying behavior remains polarized. Rejection of chemical pesticides, for instance, as expressed by a preference for organic foods, has not yet captured the wider public imagination; for instance organic food sales still account for only about 2% of the total spend on food in the US and the EU, according to a European Commission study.

The recession has also dampened the inclination of the average consumer to buy green or ethical products. Some skeptics believe that sustainable consumption is a luxury affordable only to higher-income consumers.

There is also wide cultural divergence in consumer patterns. Sustainability is a top concern of consumers in Nordic countries, thanks to their long tradition of constructive cooperation between industrial and social groups. Iceland takes the top spot as the "greenest" country, followed closely by Sweden (4), Norway (5) and Finland (12) according to Yale University's 2010 Environmental Performance Index, which ranks 163 countries across 25 performance indicators.¹³

Figure 5. Yale's Environmental Performance Index Top 10 Countries

Rank	Country	Score
1	Iceland	93.5
2	Switzerland	89.1
3	Cost Rica	86.4
4	Sweden	86.0
5	Norway	81.1
6	Mauritius	80.6
7	France	78.2
8	Austria	78.1
9	Cuba	78.1
10	Colombia	76.8

¹¹ Harris Interactive, "Fewer Americans 'Going Green'" (press release, January 2011). <http://www.harrisinteractive.com/newsroom/harrispolls/tabid/447/mid/1508/articleid/667/ctl/readcustom%20default/default.aspx>

¹² Organic Trade Association, "Industry Statistics and Project Growth". <http://www.ota.com/organic/mt/business.html>

¹³ Yale University, Environmental Performance Index. <http://epi.yale.edu/>

Meanwhile, to the surprise of many outsiders, Chinese consumers are becoming arguably the next group of buyers most influenced by sustainability—as reflected by the proliferation of green-led advertising in the country and the commercial success of environmentally friendly consumer products. Indeed, China’s investments in green energy exceed that of any other country—\$54.4 billion in 2010.¹⁴

And of course, the impact of NGOs on business practices should not be understated. In recent years, NGO campaigns (including, notably, a raft of shareholder resolutions) have had such diverse outcomes as preventing the development of coal-fired power plants, changing palm oil sourcing procedures to protect animal habitats, and expanding disclosure of water risks. Savvy companies have in fact begun to work hand in hand with leading NGOs to develop sustainability measures that address key community concerns before adversarial confrontation is triggered.

The greening of the supply chain

The green consumer is often thought of as someone who cares deeply and passionately about the environment. But in reality the most important green consumer is the business buyer.

In today’s global market, business spending is many times larger than consumer expenditure, so it can have a more profound impact on the environment. Companies such as Statoil, Johnson & Johnson, Nokia, Intel and AstraZeneca are but a few among the growing number of companies that insist their business practices—including the manufacturing process, supply chain, and information technology systems—meet a defined code of ethics.

For example, Sweden’s Electrolux has implemented a comprehensive program for monitoring, auditing and training suppliers to foster compliance with its sustainability agenda. Likewise, IBM is making sure that its suppliers cascade the same environmental requirements down to their subcontractors.



¹⁴ The Pew Charitable Trusts/Pew Environment Group, *Who's Winning the Clean Energy Race: 2010 Edition*. <http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/G-20Report-LOWRes-FINAL.pdf>

Cultivating sustainable policies

Conceptually, governments play an integral role in the sustainability project by setting the “rules of the road” and providing incentives to encourage sustainable behavior. In practice, though, governments have struggled with finding the right level of regulation, and recent fiscal pressures have caused sustainability funding to dry up. Accordingly, the role of government in facilitating sustainable business has proven fraught with uncertainty—even in instances where sustainability goals have been demonstrably achieved.

Seed capital: incentives and subsidies

As in other areas, finding the right balance between government support and free market forces can be tricky with respect to sustainability issues. Consider the example of subsidized renewable energy tariffs in Spain.

While several EU nations have spent heavily on subsidies for wind and solar power to help meet the EU target of generating 20% of electricity from renewable sources by 2020, Spain’s policy of supporting lucrative feed-in tariffs to start-up producers—guaranteed for up to 25 years—quickly generated large volumes of private investment in both solar and wind. According to some estimates nearly 3% of Spain’s electricity in 2010 came from solar energy.¹⁵

Unfortunately, the Spanish government’s vast subsidization of renewable energy, which cost it over \$4.4 billion in 2009 alone, has become emblematic of its ongoing fiscal crisis. Hastily downgraded state tariff contracts have spooked investors, frozen the market in both wind and solar power, and raised default concerns on the huge start-up loans taken out by many small producers.

“China isn’t investing so heavily in clean energy just because it’s good for the environment. It’s doing so because it’s good for the economy. China knows clean energy creates jobs and, in reducing its reliance on oil, makes it more secure.”

US Senate Majority Leader Harry Reid



¹⁵ Red Eléctrica de España, *The Spanish Electricity System: Preliminary Report 2010*.
http://www.ree.es/ingles/sistema_electrico/pdf/infosis/avance_ree_2010_ingles.pdf

This example illustrates some of the uncertainties about government-business interactions around sustainability funding:

- While the provision of start-up capital by governments can boost the initial growth of markets for green technologies, how can businesses incorporate subsidies into business planning in an environment of deteriorating public finances?
- Can public-private cooperation be more effectively leveraged to help businesses grow without creating outright dependence on government funds?
- Are structures such as “Green Investment Banks” sometimes preferable to indirect subsidies through means such as carbon tariffs?

This last concept is akin to sovereign and multinational development banks that lower the cost of capital for development projects, because the loans carry an explicit guarantee. The development bank model in fact entails the funding of a spectrum of projects, as well as nascent, mature, public and private enterprises.

China offers an intriguing example on this front. The centrally controlled nature of the Chinese state has allowed authorities to set into motion a variety of sustainability initiatives with impressive speed. A promised \$454 billion “green stimulus” package will fund a broad array of clean energy and transportation technologies, including a high-speed inter-city rail network thought by many to be designed to entirely replace the internal aviation market. Such government support has already buoyed Chinese companies to leadership positions in markets such as the manufacture of wind turbines.

There is, however, a risk that this sustainability approach is itself unsustainable. As Nouriel Roubini noted in an April 2011 article on Slate.com, “China is rife with overinvestment in physical capital, infrastructure, and property. To a visitor, this is evident in sleek but empty airports and bullet trains, highways to nowhere, thousands of colossal new central and provincial government buildings, ghost towns and brand-new aluminum smelters kept closed to prevent global prices from plunging.”¹⁶ Mr. Roubini warns, “Eventually, most likely after 2013, China will suffer a hard landing.”¹⁷

As the twig is bent: regulations

To understand the complexities of assigning responsibility for sustainability regulation, consider the issue of water management.¹⁸ Due to difficulties in transportation, water is at root a local issue, and thus a very different priority depending on relative stress levels in a catchment area.

Water legislation is also very hard to implement effectively. Existing regulations tend to focus on regulating water quality more than on managing quantities on a long-term basis.

Water is nonetheless often called the “ticking time bomb” of sustainability regulation: It is used intensively by the agriculture and energy industries, and shortages can quickly escalate to crises. Accordingly, local regulators find themselves in difficult situations with relatively limited enforcement powers or ability to set long-term strategic priorities. Global firms often must juggle a complicated array of local regulations and concerns, with little unifying guidance as to how they should manage their water resources. Water prices, too, often vary in perverse ways—at times with the cheapest water in regions of greatest stress.

CDP Water Disclosure FTSE Index Study

In 2010, the Carbon Disclosure Project (CDP) sent its first-ever water disclosure study questionnaire to some 300 of the world’s largest companies, focusing on sectors that are water-intensive or exposed to particularly high water-related risks. A few highlights of the findings:

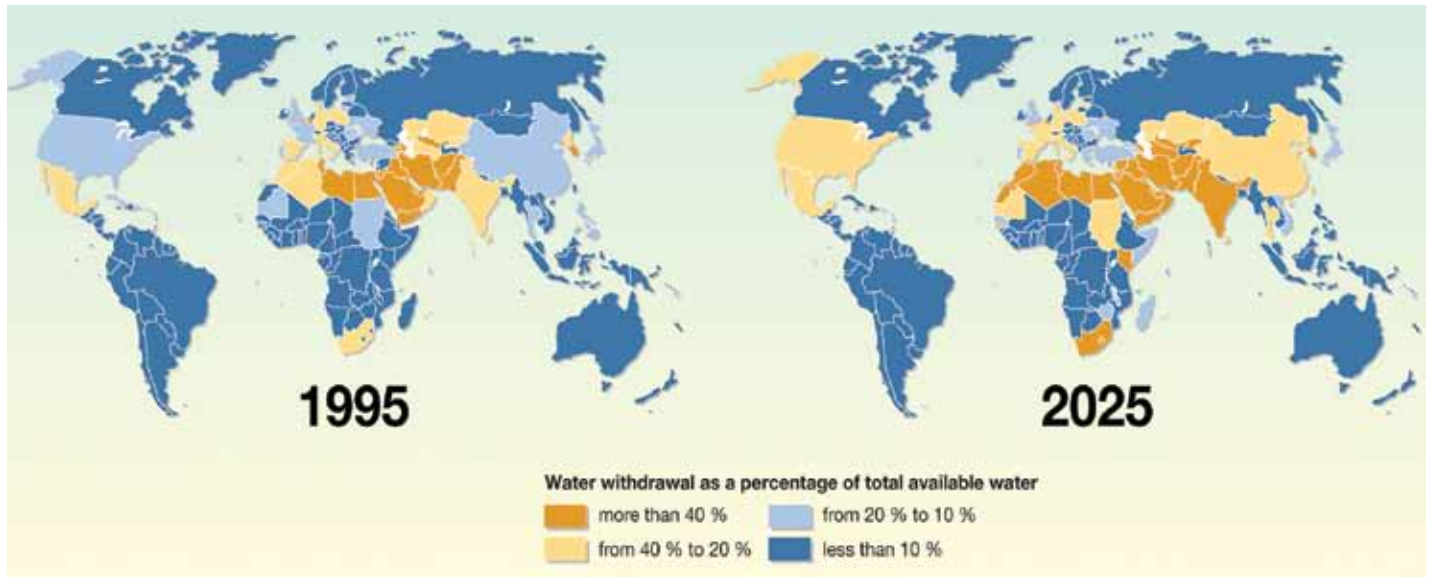
- 67% of executive respondents view water as a board- or executive committee-level issue
- 89% have developed specific water policies, strategies, and plans.
- 60% have set water-related performance targets.
- 96% understand “direct” water risks, but only 53 percent understand “indirect,” or supply chain-related, water risks.
- About half believe their water-risk horizon to be between one and five years; 39% are already experiencing impact.
- 62% identify significant water-related business opportunities.

¹⁶ Nouriel Roubini, “Beijing’s Empty Bullet Trains,” Slate.com, 21 April 2011. <http://www.slate.com/id/2291271/>

¹⁷ Financial Times beyondbrics blog, “Boom vs Doom: is Nouriel Roubini right on China?”, April 21, 2011. <http://blogs.ft.com/beyondbrics/2011/04/21/boom-vs-doom-is-roubini-right-on-china>

¹⁸ *Corporate Water Strategies* (Earthscan Ltd., 2011) by William Sarni provides extensive current context on a wide range of water-related issues

Figure 6. Increased global water stress, 1995 to 2025¹⁹



Sustainability reporting standards represent another area where the private sector can take a leading role.

With these challenges in mind, some steps are being taken on a national level, particularly in the EU. There are likely to be new regulations in the UK to reform the licensing of water extraction rights for firms that extract and use large quantities of water, such as chemicals and manufacturing firms. If approved, these rules would lead to two developments: the creation of a saleable asset for firms, and an increase in the price of water as a resource. Both are significant for firms and largely out of reach for the local regulators, who have to date been water’s primary guardians.

Even for “mature” issues such as carbon, the question of an appropriate regulator can be complex and subject to dramatic shifts. The initial phase of the European Union Emissions Trading Scheme (EU ETS) operated in a relatively straightforward jurisdictional framework, as only physically

rooted installations were included (power plants, factories, etc). However, as European regulators turned their sights toward the aviation and shipping sectors, controversy has ensued: the inclusion in emissions trading of all flights that take off and land in Europe provoked lawsuits from US airlines. The Chinese government has lately taken a very aggressive and confrontational position with respect to the EU aviation regulations.

Shipping is an even more difficult issue to tackle. Because a good part of the emissions that might be included in the EU ETS occur outside of the EU, several countries have opposed the inclusion of shipping in the scheme.²⁰ As a result, observers expect little regulatory progress before 2015. In the meantime, the International Maritime Organization (IMO) has begun to discuss self-regulation²¹—seen as a potentially appealing alternative by many shippers.

¹⁹ UNEP/GRID-Arendal, “Increased global water stress,” *UNEP/GRID-Arendal Maps and Graphics Library*, 2009. <http://maps.grida.no/go/graphic/increased-global-water-stress>. Map designer: Philippe Rekacewicz (Le Monde diplomatique), February 2006.
²⁰ Madhu Unnikrishnan, “China, Russia Seek Support for ETS Challenge,” *Aviation Daily*, 10 August 2011. http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=aviationdaily&id=news/avd/2011/08/11/02.xml
²¹ International Maritime Organization, “IMO environment meeting completes packed agenda” (press release), 19 July 2011. <http://www.imo.org/MediaCentre/PressBriefings/Pages/43%20MEPC62ENDS.aspx>

On many key issues, in fact, self-regulation and development of standards by industry has overtaken any regulatory efforts by government. For example, the Forest Stewardship Council (FSC), which has representation in 50 countries, has provided consumers with detailed information about the sustainability of wood products. Meanwhile, supply chain coalitions with an eye toward environmental impact have begun to form²²—and, according to some predictions, are likely to operate separately from prevailing public policy frameworks.

In the area of sustainability reporting standards, the private sector is taking a leading role. For instance, the Prince's Accounting for Sustainability Project (A4S) in the UK and the Global Reporting Initiative recently announced the formation of the International Integrated Reporting Committee (IIRC). The IIRC's remit is "To create a globally accepted integrated reporting framework which brings together financial, environmental, social and governance information in a clear, concise, consistent and comparable format."²³

Environmental legislation in a democracy can take an extremely long time to shape and implement, and the backdrop of unprecedented public spending cuts in advanced economies now also raises questions about the direction of public policy intervention on sustainability. As a result, private sector leadership has never been more crucial.

Reporting: Are companies progressing towards sustainability transparency?

Thousands of companies around the world now produce annual sustainability reports. But this can be misleading: the extent and depth of disclosures varies significantly.

There has previously been a dearth of reporting regulation, but this is rapidly changing. At the national level, the last five years have seen the growth of a network of voluntary standards, and some countries—notably Denmark, France, Sweden—have laid the foundations for a global policy shift by requiring large firms to report on their non-financial performance (though not against a pre-defined standard). In particular, amendments made in 2009 to the Danish Financial Statements Act (Article 99a) are a very significant development, and likely to be replicated in other countries.

Interestingly, leadership on integrated reporting regulations tends to come from emerging rather than developed countries. For example, South Africa's King III Code on corporate governance, introduced in 2010, sets the benchmark in this area. Although it remains officially voluntary, listed companies on the national stock exchange are challenged to adopt the code, or explain why they don't. At a global level, the recent establishment of the International Integrated Reporting Committee (IIRC) is considered an important step.

The Global Reporting Initiative (GRI) has also played a major role in the march toward sustainability transparency. The GRI—officially formed in 1998 in partnership with the United Nations Environment Program (UNEP)—has released a series of guidelines for reporting sustainability information that have become the cornerstone of a number of major companies' approach to the subject.

Currently, two major proposals dominate the GRI's agenda:

- 1) All large and medium sized companies around the world should be required to report on their environmental, social and governance (ESG) performance by 2015, and if they do not, they should be required to explain why.
- 2) Financial and non-financial performance reporting should be integrated under a new international standard by 2020.

Nevertheless, so long as compliance standards remain voluntary, it seems likely that the number of companies producing fully integrated reports will remain relatively small. Indeed, few experts in the reporting field anticipate mandatory guidelines in this area before 2015.

²² One example is the Supply Chain Carbon Coalition. See <http://www.greenlogisticsforum.com/europe/coalition.shtml>.

²³ International Integrated Reporting Committee, "The IIRC" (web page). <http://www.theiirc.org/the-iirc/>

Thriving in uncertain ground: action points for executives

Despite uncertainties about regulatory, macroeconomic, and other trends, companies have the ability today to take to prepare for the likelihood that sustainability pressures will become ever more acute. The following are offered as suggestions in crossing uncertain terrain.

1) Understand how sustainability may fundamentally change your business model. Many firms have held onto unsustainable products through short-term technological fixes. The revolutionary changes wrought by the transition to sustainable business thinking will provide enormous opportunities for companies that embrace innovation.

2) Drive sustainability efforts by partnering with government agencies and companies in your industries. Coalitions among private-sector players can go a long way to establishing much needed standards and frameworks. Government agencies, meanwhile, can act as coordinator and advisor to ensure that frameworks are consistent across sectors, and provide fiscal support where applicable. First-movers have the opportunity to set the agenda and help define the standards, but you may need to move swiftly to do this.

3) Develop a programmatic (not opportunistic) approach to incentives. Taking advantage of incentives offered by governments worldwide is a logical move for all companies. However, given the sensitivity of government spending to unpredictable economic conditions, executives must incorporate contingency plans for budget cuts in their strategic thinking- and plan programs that quickly sustain themselves without government aid.

4) Make someone accountable for sustainability data and systems. Increasingly sophisticated and varied demands for sustainability performance information means that companies will be pressed to manage sustainability data with far greater precision than before. Designating someone to assume responsibility for this data—and the systems and processes associated with it—is essential for success.

5) Assess the impact of future commodity costs under alternative scenarios—and understand the costs of volatility. While the overarching trend suggests that prices will likely rise for the right to emit GHGs and for a host of other commodities, the near-term outlook for these prices is muddled by stop-and-start regulatory action and geo-political risks. While executives explore how their fundamental cost structures could change as these prices rise, it may prove equally important to examine both the impact of price volatility and the benefits of a resource-based perspective on reducing exposure to supply shortfalls.

6) Engage with stakeholders regularly to understand their shifting sustainability needs. Leading-edge companies are leveraging interactive technologies—most notably social media—to gather stakeholder feedback on sustainability issues on an ongoing basis. This enables executives to identify potential issues and understand shifting priorities. Knowing which issues are top of mind for stakeholders can help companies set near-term tactics—and communicate more effectively in the long run. Involving local communities as partners and co-designers of new models enhances local buy-in and ownership.

7) Prepare for integrated financial and sustainability reporting—even if it seems far off in your jurisdiction. Companies may struggle to visualize a world in which sustainability performance information must be regularly reported alongside financial performance information. Yet given the momentum toward incorporating sustainability information into financial reporting—and the complexity of the systems and work required to seamlessly accomplish this integration—beginning the transition now, even in incremental ways, will reap substantial rewards later. Moreover, the work involved in *understanding* the ways in which sustainability information is material to business will prove invaluable to your company's progress through this era of transition.



For further reading

The below books and publications may serve as sources of additional perspective about the topics that this paper addresses.

Business's Role in the Sustainability Agenda

Natural Capitalism: Creating the Next Industrial Revolution. By Amory Lovins, Hunter Lovins, and Paul Hawken. Back Bay Books, 2008 (originally published 2000).

When Principles Pay: Corporate Social Responsibility and the Bottom Line. By Geoffrey Heal. Columbia Business School Publishing, 2008.

Capitalism at the Crossroads: The Unlimited Business Opportunities in Solving the World's Most Difficult Problems (2nd edition). By Stuart Hart. Wharton School Publishing, 2005.

Force of Nature: The Unlikely Story of Wal-Mart's Green Revolution. By Edward Humes. HarperBusiness, 2011.

Climate Change and Carbon Regulation

Climate Change 101: Understanding and Responding to Climate Change (paper series). From the Pew Center on Global Climate Change. Available at http://www.pewclimate.org/global-warming-basics/climate_change_101.

The Economics of Climate Change: The Stern Review. By Nicholas Stern. Cambridge University Press, 2007.

State and Trends of the Carbon Market Report 2011. From the World Bank Group. Download at http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State_and_Trends_Updated_June_2011.pdf.

IPCC Fourth Assessment Report: Climate Change 2007, Summary for Policymakers. Edited by R.K. Pachauri and A. Reisinger. Intergovernmental Panel on Climate Change, 2007. Available at http://www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html.

Developing Country Issues

The Bottom Billion: Why the Poorest Countries Are Failing and What Can Be Done About It. By Paul Collier. Oxford University Press, 2007.

The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits. By C. K. Prahalad. Wharton School Publishing, 2004.

The River Runs Black: The Environmental Challenge to China's Future. By Elizabeth C. Economy. Cornell University Press, 2004.

Biodiversity

The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB [synthesis report]. TEEB, 2010. Available at www.teebweb.org.

Water

Corporate Water Strategies. By William Sarni. Earthscan, 2011.

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