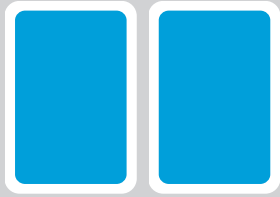


# Raising Our Game Can We Sustain Globalization?



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We extend heartfelt thanks to the Skoll Foundation, Novo Nordisk, Vodafone, Shell, and The Ford Motor Company for their sponsorship and support during the project. We are especially grateful to Priya Matzen at Novo Nordisk and Ramon Arratia at Vodafone. We also thank Edward Bickham at Anglo American for graciously offering to host the launch of this report in London.

The early input provided by participants at our workshop in 2006, as well as by the interviewees in our research process, was invaluable in shaping this report, as was the insight and feedback of the SustainAbility Network and Compass members to our online surveys.

We also gratefully acknowledge the facilitation of a scenario session towards the end of the project by Patrick Noack and Maddalena Campioni of Scenario Development. Last, but very far from least, we thank Rupert Bassett for his crucial help in bringing this report to life visually.

We invite and encourage feedback from readers, since this project is a stepping stone in our ongoing evolution.



The stakes could not be higher: this century's defining global gamble focuses on sustainability — a game in which we are betting both the planet and our future as a species.



## SustainAbility

A week may be a long time in politics, but 20 years can seem an eternity in business. When SustainAbility was formally registered as a company in March 1987, the world was a profoundly different place – even if the nature of today's agenda was already visible. The Berlin Wall still stood and seemed inviolable, along with everything it stood for. And although the concept of sustainable development would be tabled by the Brundtland Commission in *Our Common Future*<sup>1</sup> a month or so after our launch, for most people connected to this agenda this was still largely an environmental story. As the final decade of the 20th century got into its stride, we helped signal the growing importance of the economic and social aspects of the sustainability agenda in 1994 when we coined the term *triple bottom line*.<sup>2</sup> Today, however, the agenda is moving beyond its compliance and citizenship phases to a new era likely to be characterized by radical innovation and entrepreneurial solutions.

In fact *Raising Our Game* summarizes the outcomes of one of the most challenging projects SustainAbility has undertaken to date. Our thanks to all those mentioned in our Acknowledgements section (inside front cover), but particularly to our key sponsors: The Skoll Foundation, Novo Nordisk, Vodafone, Shell, and the Ford Motor Company. And our title? Rather than seeing recent breakthroughs in terms of the greening of CEOs like Jeffrey Immelt of GE or Stuart Rose of Marks & Spencer as signaling a new era in which the sustainability community gets to run the game according to its own rules, we suspect that the game is about to jump to new levels of complexity and sophistication. So the challenge for everyone involved will be to 'raise our game.'

The report addresses four main audiences – and the process of refining, testing, and rolling out the messages will continue as SustainAbility celebrates its 21st year, through to March 2008. The first, key audience will be decision-makers in the private and public sectors. The second will be the multiplicity of actors now involved in the global sustainability movement. The third comprises those working professionally on corporate responsibility and sustainability issues inside leading business and financial institutions. And the fourth is our own team and network. As we reviewed our progress and strategy ahead of our 20th anniversary, we decided to focus in future on six key economic sectors<sup>3</sup> – and the analysis and scenarios presented here will be used to evolve our thinking, models, and relationships in each of these areas.

The entire political agenda is undergoing profound change – driven by such factors as the entry of countries like China and India into the global economy, by terrorism and counter-terrorism, by the evolution of potentially revolutionary technologies, and by the looming threat of abrupt climate change. In a complex, fast-changing world, political and market players alike know that the next decade is likely to be critical – but rarely in human history has so much hung on the actions to be taken in a few short years. To help stretch our own thinking – and hopefully that of our readers – we developed four scenarios during the course of the project.<sup>4</sup> These can be found in Chapter 4, and our conclusions are in Chapter 6. In retrospect, *Raising Our Game* has proven to be less of a report on work done and dusted than an invitation to the wider world to think and work together in tackling the defining crises of the 21st century, with all their attendant risks and opportunities.

### John Elkington

Founder and Chief Entrepreneur,  
on behalf of the project team:

**Seb Beloe**

**Ivana Gazibara**

**Ritu Khanna**

**Mark Lee**

**Kavita Prakash-Mani**

**Sophia Tickell**

## Novo Nordisk

When venturing on a journey into uncharted territory it's good to walk with trusted companions. To Novo Nordisk, SustainAbility is indeed such a companion.

Over the years, SustainAbility has challenged businesses and decision-makers to put into practice and scale up their thinking to address key societal challenges. This time, we, the sponsors of this research project, have challenged SustainAbility. Given that globalization shapes our operating landscape and competitive environment, we felt a need to better understand the mechanisms that drive these developments. We needed to understand why 'globalization' triggers such strong emotions in people. We also recognize that it raises new dilemmas for businesses that have assumed a responsibility as global citizens. It became evident that it was high time to analyze and respond to globalization in a more systematic manner.

This report distils a number of macro trends and brings them into a pattern that can make sense to readers. As such the report does not claim to provide all the answers. But it will serve business leaders well as an input to their ongoing analyses of possible responses to globalization.

We look forward to seeing how the scenarios outlined in *Raising Our Game* will play out. Perhaps we could create a game in which we are all playing a hand of hearts? Pick your cards and join us in the game. If you don't play, you won't win.

### Lise Kingo

Executive Vice President

## Skoll Foundation

Societies and their leaders have long looked to sages for help in preparing for the future. Ancient Egyptian priests headed upstream each spring to study the color of the Nile's waters in order to predict the ideal, middling, or disastrous flood conditions that determined whether the season's crop would flourish or fail. Today, legions of consultants advise corporations and governments on dangers and opportunities ahead and how to prevail in an uncertain world.

But is 'to prevail' still the goal? Or have the rules of the game, and the game itself, changed in ways that challenge the very notion of what it means to win? Seven turbulent years into the new century, and seven millennia forward from when those prognosticating priests advised the pharaohs, our need to understand the forces at work in a globally interconnected and interdependent world has never been more critical. Where to turn? *Raising Our Game* asks the essential question and then helps us make sense of how humanity got to this point and what we might do about it.

Like John Elkington and his exceptional SustainAbility team, the Skoll Foundation sees that globalization is one high-stakes game no one gets to sit out. Business, government, and civil society are in this together. None of us can truly win – that is, win for the long-term – unless global society and the planet win, too.

### Sally Osberg

President & CEO

## Vodafone

The world of international business is as bewildering as it is exciting, and predicting the areas of risk and opportunity is a challenge to us all.

As a business, Vodafone has clearly benefited from the globalization process; however, we recognize, as this report makes clear, that our future success will be due to our ability to generate radical innovation and adapt our business to adopt entrepreneurial solutions. For a corporation which has interests in 25 different countries and 60,000 employees this is a challenge indeed.

Mobile communications has had a fundamental impact on society. Put simply it has enabled people whose views and needs were previously unheard to be active participants in the marketplace. This in turn has had a positive impact on economies all around the world. The need now is to continue that growth and ensure it can be sustained.

We cannot predict all the applications that our customers will want in the next 20 years. But we can listen and learn from the wealth of experience and information which is available. The concepts, experience, and projections presented in *Raising Our Game* contribute significantly to this process and will help enable us to anticipate future needs and, in response, build the necessary infrastructure and platforms to support them.

### Charlotte Grezo

Director of Corporate Responsibility



# Executive Summary

Interactions between the complexities of globalization and the evolving sustainability agenda will define markets and politics in the 21st century. This report reviews some of the key recent trends driving – and driven by – globalization. It looks at where these processes are likely to take us over the next two decades, and their implications for the corporate responsibility and sustainable development agendas.

Globalization – that is the freer movement of goods, services, ideas, and people around the world – is not a new phenomenon but has massively accelerated over the last two decades with 20% of the world GDP now being contributed by global trade. This acceleration has been driven by the opening up of new markets, the rapid evolution of technology and global connectivity, the growing prominence of developing countries, and the great surge in the number and reach of multinational businesses.

Today's globalized world has particular attributes: interconnected global financial markets with positive and negative consequences; unprecedented urbanization reflecting powerful underlying trends associated with the way people earn a living; growing divides and potentially explosive disparities between the rich and poor; challenges to diversity – in its biological, ecological, human, and social forms; climate and environmental insecurity; governance vacuums; and blessed unrest – the proliferation of networks dedicated to restoring the environment and fostering social justice.

New players are surging onto the globalization field. China and India with their impressive growth rates are powerfully influencing commodity markets and global trade, and catapulting new South–South trade relationships onto the global stage. Other emerging economies – like Brazil and South Africa – although not in the same league, are playing ever important regional and global roles. As their economic influence grows, developing countries are also trying to shift the rules of globalization in their favor.

The economic growth has major sustainability consequences. China, India, Brazil, and Russia are collectively already responsible for 30% of global CO<sub>2</sub> emissions.

While opportunities flourish, divides based on demographics, wealth, gender, nutrition, health, environmental resources, education, information, security, and governance continue to persist and in many cases worsen. How will these trends play out? The report outlines a set of scenarios to visualize how the future might unfold.

As with most scenarios, it is likely that elements of each of them will emerge in different regions at different times, but together they point to six dimensions of the G.A.M.B.L.E. agenda:

- Economic growth will continue but will need to be contained within a 'one planet' agenda.
- There will be a continued acceleration in the scale and speed of events and decision-making: from business cycles to environmental impacts.
- The sustainable development agenda, or at least key components of it such as climate change and human rights, will continue to be mainstreamed into market and political systems.
- But the agenda will continue to encounter a bewildering array of social, cultural, ecological, and even psychological barriers.
- The importance of leadership will be further emphasized and will likely emerge from unexpected directions including from newly emergent city-states, NGOs, and companies.
- Finally, equity will re-emerge as a fundamental principle, and a precondition of a more sustainable world.

The report concludes with seven recommendations to business and the wider sustainability movement:





## 1 Plan for the unexpected

In a world that is accelerating and becoming more complex, it will be vital to build in flexibility whether in technology platforms, supply-chains, or human resource policies.





Figure 0.1  
Future scenarios

	Environment loses	Environment wins
Society wins	<p><b>Spades</b></p>  <p>Democratic societies open out higher living standards to growing populations. One key consequence is that natural resource prices rise, but another is that ecosystems are progressively undermined, with most governments unwilling to take the political risks of asking voters to make sacrifices in favor of the common good. The challenges are managed to a degree, thanks to more open societies, but not well enough. Deteriorating environmental conditions gnaw at the islands of affluence.</p>	<p><b>Hearts</b></p>  <p>This is a world in which demography, politics, economics, and sustainability gel. It is the future that the Brundtland Commission pointed us towards. The early years of this scenario, however, are rough, with a global pandemic shutting down global trade. But in this case the challenges come in forms that drive positive responses, underlining the importance of shared solutions and inclusiveness. Over time, virtuous spirals of improvement set in, in most places. The outcome: a second Renaissance, but across a larger canvas.</p>
Society loses	<p><b>Diamonds</b></p>  <p>This scenario is bleak — a domino-effect world, in which instead of Adam Smith's invisible hand, our invisible elbows knock over a series of economic, social, and environmental dominoes. Demographic trends and the spread of western lifestyles devastate ecosystems. The challenges come in forms that disable decision-makers and overwhelm society's ability to respond effectively. Over time, as fear closes down thinking and creativity, vicious spirals develop in politics, governance, economics, and technology.</p>	<p><b>Clubs</b></p>  <p>This is a world in which, among other things, the elites learn how to use environmental sustainability as an excuse for denying the poor access to their fair share of natural resources. One outcome is a slowing of the destruction of ecosystems locally, but this future is characterised by protracted periods of social tension — broken with increasing frequency by insurrections. The waves of change build fitfully, chaotically, with closed societies and communities often operating in denial for extended periods. Over time, this erodes islands of sustainability.</p>

**2 Find true South**

The extent to which the interests of the emerging economies will clash with those of the developed North can scarcely be exaggerated. So focus sustainability efforts and investments on regions and cities where the population is booming and development needs are highest.

**3 Don't expect 'nice' companies to come first**

Even the best corporate citizens can be damaged by scandals, controversies, and economic discontinuities. Over time the capacity to create true blended value will become a defining characteristic of tomorrow's successful global businesses.

**4 Co-evolve Earth's immune system**

Social and ecological shocks are already catalyzing the development of a civil-society-led 'immune system' for the Earth. Be part of this to help accelerate its development and serve as a source of market intelligence — and creation.

**5 Think opportunity — and innovation**

Reframe social and environmental issues not just as risks but also as sizeable market opportunities.

**6 S-t-r-e-t-c-h**

The scale of the challenges is immense and will require radical approaches to catalyze breakthrough solutions.

Business and other leaders will need to reach beyond their comfort zones in finding new models, new technologies, and new partners in sourcing — and scaling — solutions.

**7 Do the politics**

This agenda is now political. Get involved and take stands. The time has come for the vision, courage, innovation, and enterprise needed to leapfrog into a different world.

The time has come for us all to raise our eyes, our ambitions, our game.

# Introduction





Globalization has been operating on steroids for years — and the evidence suggests that the process is set to continue. Today, however, 'the world confronts a wall of uncertainty,' to quote the *Financial Times*.<sup>5</sup> The evidence suggests that globalization's 'Americanization' variants are likely to come under growing pressure, while all forms of globalization potentially contain the seeds of their own ultimate collapse. What follows is a brief survey of some of the key recent trends driving — and driven by — globalization, followed by an assessment of where these processes are likely to take us over the next decade, and their implications for the corporate responsibility and sustainable development agendas over the coming decade. We use four scenarios to tease out some of the underlying trajectories in Chapter 4.

These are extraordinary times. Since Malcolm Gladwell's book on the subject, the term 'tipping point' has been much used,<sup>6</sup> like 'paradigm shift' some time earlier, following the success of Thomas Kuhn's hugely influential book, *The Structure of Scientific Revolutions*.<sup>7</sup> But we see evidence of a series of tipping points across the agendas covered in the following pages — and, taken as a whole, the early stages in the emergence of a genuinely different paradigm, or set of paradigms, that will shape how business is done in the 21st century.

As the endgame of 20th-century variants of capitalism draws to a close, the range of choices is narrowing — and the implications of wrong turns seems set to climb almost exponentially. If you were a biologist, you might conclude that to be anything like sustainable, 21st-century capitalism must now evolve at a speed and on a scale not seen since the Cambrian explosion.<sup>8</sup>

We are entering a period during which the level of experimentation, innovation, and entrepreneurship will grow — must grow — by orders of magnitude. As a result, and whatever comparisons we may choose to use, it is increasingly clear that the combination of globalization, demographics, and issues like climate change means that the playing fields across which business operates will be convulsed.

Nothing new there, of course, as the economist Joseph Schumpeter acknowledged in the 1940s with his thinking on the processes of 'creative destruction' that drive the evolution of capitalism and markets.<sup>9</sup> But the sustainability agenda, particularly when boiled down into narrower concepts like corporate social responsibility, has yet to be seen for what it is: a label applied to a set of factors that will drive waves of creative destruction through the coming decades.

The background to the current project can be summed up as follows:

- 1 The concept of sustainable development has stood the test of time since it was first injected into the political mainstream in 1987 by the Brundtland Commission.
- 2 The language of sustainability is now increasingly used even in the US, where it was for a long time viewed with far more skepticism than by audiences elsewhere.
- 3 The potential role of business and markets is acknowledged in ways that would have been inconceivable during the Brundtland Commission era.
- 4 In terms of the context, the end of the Communist era and the onset of a new round of globalization radically redefined the playing field for business.

5 In the process, multinational corporations with major brands have been pushed to accept new responsibilities and new forms of accountability.

6 Increasingly, however, as issues like terrorism, pandemic risks, poverty, and climate change crowd the agenda, we are reaching the limits of what business can achieve voluntarily.

7 And, as globalization draws in new market players, notably China and India, there is a growing sense that the rules of the game are changing — and that we may need to learn new games entirely.

In what follows, we use the games metaphor as a means to simplify the interactions between the bewildering complexities of globalization, the evolving sustainability agenda and 21st-century politics. In sequence, we will talk of the new playing fields on which market games will be played out; the new players charging onto these playing fields; the gamblers speculating on the outcomes; the new rules and scorecards that dictate how the players should behave; the new games that could powerfully shape market expectations and processes; and the new referees and incentives that will be needed to ensure that a world of 7–10 billion players and spectators is at worst manageable and — at best — sustainable. We offer our conclusions in Chapter 6.



# New Playing Fields





There have been previous rounds of globalization but the latest round has moved further, faster than any previous era. All of this at a time when the world is more interconnected than ever before. This round has massive implications for billions of people, and more than at any time in our history, for future generations.





# 1 Globalization on Steroids

Few things symbolize the processes of globalization more powerfully than the mushrooming skylines of the world's great cities. With 2007 marking the point at which humanity became for the first time a predominantly urban species,<sup>10</sup> cities have been growing outward — and upward. In 1999, the year when the Seattle summit of the World Trade Organization (WTO) was disrupted by anti-globalizers, Malaysia announced that it had broken the world skyscraper record with its 452-metre-high Petronas Towers in Kuala Lumpur. It only took five years for that record to be topped, however — by Taiwan's 509-metre Taipei Financial Center (Taipei 101). That record, too, is set to have short shelf-life: by the end of 2008, the title is set to go to Burj Dubai, a towering 808-metre skyscraper, which those involved see as one more jewel in the skyline crown of the desert emirate.<sup>11</sup>

But the globalization of the art and science of skyscraping is only one of multiple globalizations proceeding in parallel. Sometimes they reinforce one another — and sometimes, as with the spread of fundamentalist terror cells, they run interference. So what are we talking about when we speak of *globalization*? What are the key drivers of the process? What are some of its most striking characteristics? And what are the implications in terms of the risks and opportunities for business and markets? Let's take each of these in turn.

## 5,000 definitions

First, definitions. The numbers tell the story, or part of it. In 1913, 8% of world GDP was contributed by global trade, growing to 15% by 1990 and around 20% today. As a result, the topic of globalization has become something of an obsession for the media, business leaders, politicians and — as job opportunities mushroom or losses strike home — for the public at large in countries around the world. With over 5,000 definitions of the subject and more than 29 million hits on Google if you search for the term, this is clearly still a hot topic.

But what is globalization? The word first entered common parlance in 1983 when the late Harvard Business School professor Theodore Levitt wrote an article for the *Harvard Business Review*. He argued that new technologies had 'proletarianized' communication, transportation, and travel, in the process creating worldwide markets for standardized consumer products at lower prices.<sup>12</sup> Frustratingly, however, Levitt did not provide a compelling definition of globalization in his article — and the void has subsequently encouraged a dizzying proliferation of competing definitions. Overall, we like the relatively simple definition offered by *Economist* writers John Micklethwait and Adrian Wooldridge. Globalization, they say, 'is the freer movement of goods, services, ideas and people around the world.'

Clearly, this process is not new, indeed it has been going on for thousands of years. A million and half years ago, *Homo erectus* began to move out of East Africa into the rest of the continent — and then onward to Eurasia. This early period of divergence was then followed, much more recently, by periods of accelerating convergence, as trading links, empires, and technologies like the telegraph and internet stitched the world together in new ways.<sup>13</sup> But the processes of convergence have massively accelerated in recent decades. Nor is it a single, linear process: often thought of in economic or trade terms, globalization has much broader political, social, cultural, and ecological dimensions and ramifications.

## Four drivers . . .

Picture all of this happening in a giant global stadium. As the audience swells you begin to see strange movements surge through it. These waves signal new interests, excitements, or concerns among global citizens, periodically resulting in roars of approval or disapproval — and, occasionally, even invasions of the pitch by spectators.



In terms of factors that have driven globalization, there have been many, including the consolidation of such trade bodies as the General Agreement on Tariffs and Trade (GATT) and WTO through the 1980s and 1990s. But throughout this project, four drivers stood out.

#### Driver 1

#### The opening up of existing markets, with successive waves of liberalization, deregulation, and privatization

The past 20 years have seen the opening up of existing markets, with national and regional governments — encouraged by the WTO — lowering barriers to trade. Despite the push-back seen in some countries — among them Venezuela, Iran, and Russia, as well as the US and the EU on issues such as agricultural subsidies — the momentum of trade liberalization, of privatization, and of certain types of deregulation remains energetic. Total world cross-border trade as a percentage of global GDP was 18% in 1990 and it is estimated that it will rise to 30% in 2015.<sup>14</sup>

That said, it is clear that the economic, social, and environmental impacts can be profound, as when the WTO ended the Multi Fibre Agreement (MFA), which resulted in Chinese garment manufacturers gaining mightily at the expense of other developing countries. Although there is still a fairly strong commitment among many policy-makers to the ongoing game of globalization, there is also growing concern about the asymmetry of power relationships involved in certain types of market liberalization. Consider the Doha round of trade talks, which aim to increase world trade by lowering tariffs. It has been stalled for years because of the unwillingness of the US and EU to reduce their trade-distorting agricultural subsidies, a key point of contention for developing countries like India and Brazil.

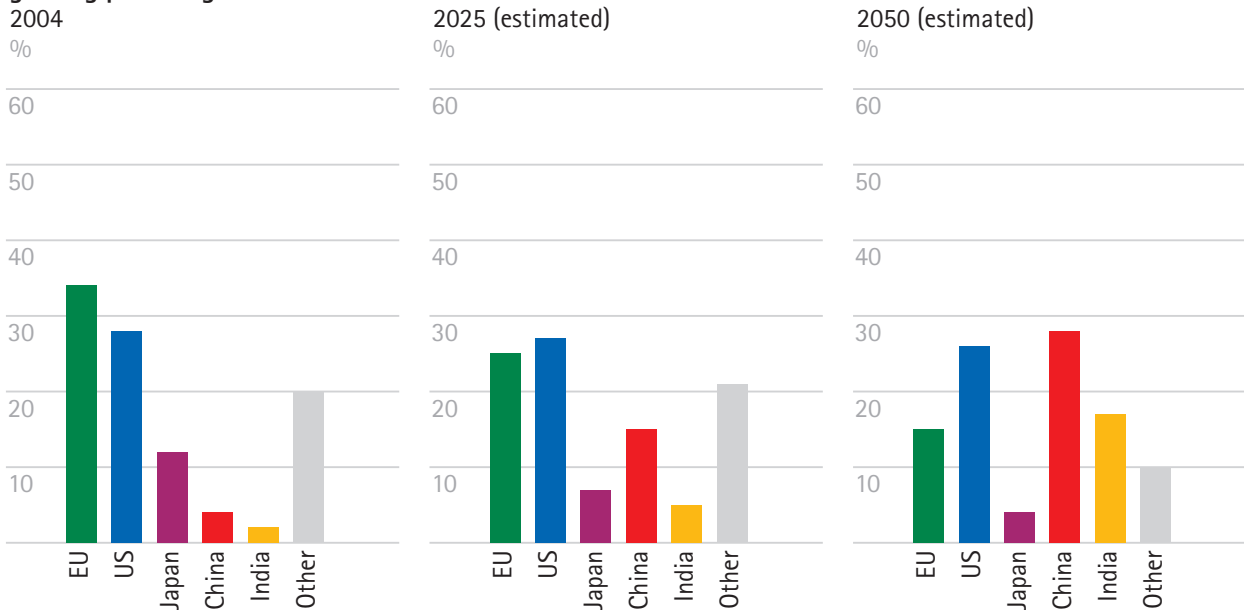
#### Driver 2

#### The rapid evolution of technology and global connectivity

A second trend — and it is sometimes difficult to know what is cause and what is effect, with IT driving globalization and vice versa — is technology and connectivity. Every era of globalization has had a strong technological theme associated with it, whether it was the exquisite, deadly Viking longship, the Dutch East Indiaman, the thundering steam train, or the telegraph, telephone, and internet. In turn, these tightly coupled influences serve to drive the development of other technologies and markets. Consider aviation, one of the most conspicuous drivers and enablers of globalization. The flow of air travelers has more than doubled in the past 20 years, passing 1.9 billion in 2004, up 11% from 2003 — despite terrorism, time-consuming security checks, the SARS scare, and other travel suppressants.<sup>15</sup>



Figure 1.1  
**China and India account for a growing percentage of world GDP<sup>16</sup>**



As the information and communication technology (ICT) sector has boomed, pouring out a seemingly endless cornucopia of personal computers, cell phones, MP3 players, and associated services, connectivity has grown exponentially. The number of people connected to the internet topped 1 billion in 2005 – and will likely hit the 2 billion mark even faster. Businesses like Amazon, eBay, Google, and MySpace are just the beginning, and the same is true of the proliferation of personal and corporate blogs, and of virtual environments like Second Life. We discuss the resulting digital divide in Chapter 3. Meanwhile, radical though these developments may be, if nanotech enthusiasts are to be believed these advances will seem trifling in comparison with the coming nanotech revolution. Critics, on the other hand, worry about the technology's potential 'to threaten the human project itself'.<sup>17</sup>

### Driver 3 The greater prominence of developing countries

The third accelerator has been closely linked to the first two. This has been the emergence of new economic powerhouses, most notably China and India – two of the emerging economies investigated in greater depth in Chapter 2. China is expected to account for 15% of world GDP in 2025 and by 2050 is predicted to have overtaken the US and to account for 28% of global GDP (Figure 1.1). India is not far behind.

Evidence of this includes the increasing presence of emerging economy companies in the developed world. An early signal of the trend came with the sale of IBM's personal computer business to China's Lenovo, soon followed by the attempted takeover of Unocal by China's CNOOC and the purchase of UK's Corus by Tata Steel of India. But there are counter-trends here, too, as illustrated by the tariffs put in place by the EU to stop China from flooding the market with cheap apparel, even though China would have been within its WTO rights.

### Driver 4 The extraordinary surge in the number, reach, and sophistication of multinational businesses

Finally, at least among our 'Big Four' influences, there has been the evolution of multinational – and increasingly globally integrated – corporations. Behind the scenes, this process has involved profound experimentation and innovation in relation to business models and supply chains. Multinational corporations like Arthur Andersen, BP, Enron, McDonald's, Monsanto, Nike, and Shell have erupted into the media spotlight and, to their great discomfort, unintentionally provided abundant case-study material for business ethics courses.

But globalization has also been driven by other players, among them retailers like Amazon and eBay, banks like Citigroup and HSBC, and cheap airlines like EasyJet and Wizzair. These private sector players have proved extraordinarily effective at exploiting and reinforcing an increasingly interconnected world. In fact such companies are now among the most globalized of institutions: for example, today over 65% of the world's non-financial transnational corporations have more than 50% of their employees and assets outside the country of their headquarters.<sup>18</sup>



## ... and seven attributes

Combine the power of these four drivers and the result is probably the most profound accelerative set of forces in our collective history. Although there have been previous rounds of globalization, the current round is operating as if on performance-boosting drugs. So what are the key characteristics of this latest phase of globalization? These are seven attributes that surfaced during our survey.

### Attribute 1 Capital revolutionaries

They come in many guises, among them hedge funds, private equity investors, and venture capitalists. And they are leading a global revolution in the marketplace. Every day, around \$2 trillion worth of currency is traded around the globe. If anything has become truly globalized in the past decade, it is money. Liberalized national financial markets, advances in technology and communications, investor appetite for higher returns, and corporate appetite for new markets, products, and sources of inputs are some of the drivers of the increasingly interconnected global financial market.

According to the UN Conference on Trade and Development (UNCTAD), foreign direct investment (FDI) inflows equalled \$648 billion in 2004, 36% of which went to the developing world, while cross-border merger and acquisition deals were valued at \$381 billion. Even remittances — sent back to domestic economies by families working abroad — totalled \$226 billion in 2004. In contrast, overseas development assistance contributed by members of the OECD Development Assistance Committee totalled just \$54.3 billion.<sup>19</sup>

Inevitably, such capital flows create opportunities by spurring economic growth, creating employment, enabling the transfer of technology and managerial skills, and improving access for developing country industries to the global marketplace. Cross-border investment might even serve as a deterrent to war, it is suggested, the theory being that the parties to this investment are less likely to go to war with each other given the costs of disrupting their economic relationship.

Certainly this was the logic behind the founding of the European Union. But FDI and portfolio investment have also had negative consequences, for example the 'crowding out' of local industry by foreign investment, the transfer of socially or environmentally harmful technology, and increased volatility in national securities markets and economies due to short-term investors and speculators.

### Attribute 2 Maquila planet

Today's unprecedented urbanization reflects powerful underlying trends associated with the way people earn a living. Instead of being primarily agrarian economies, a growing proportion of the world's population is now employed in manufacturing and services. In 2005, 40% of the world's population was involved in agricultural work — down from 44.4% in 1995.<sup>20</sup>

The overall trend has been flash-distilled by Tom Friedman in his book *The World is Flat*.<sup>21</sup> In the process of globalization, he argues, jobs increasingly move towards low-cost workers, while would-be workers migrate in pursuit of new opportunities. The *maquila*<sup>22</sup> in Mexico, for example, experienced 40% growth rates as a low-cost source of labor for US manufacturers between 1990 and 2000. Between 2002 and 2003, however, the region experienced a decline in employment of more than 15% with many factories moving to even lower cost regions, in particular China. The *maquiladoras* have been doing somewhat better lately because of increasing specialization in response to Asian competition as well as the inherent advantage of geographic proximity to the US. But at an average annual per-capita GDP growth of 1.5% between 1990 and 2005,<sup>23</sup> Mexico is finding it hard to compete with economies like India, China, and even Russia.

Combine these shifts with the technical ability to digitize almost any activity and work will increasingly get moved to areas where it can be done most effectively and efficiently. And, increasingly, this means to the emerging economies — as can be seen in the case of offshoring IT-enabled services, back office support work and call centres.

### Attribute 3 Growing divides

With the rapid growth in the economies of developing countries, the opportunity posed by globalization for the world's poor is seen by some as being greater than ever. However, there is nothing automatic about globalization delivering on this promise. It may well lead to a greater aggregation of wealth among the already wealthy than help to reduce poverty overall. Trade policies still strongly favor developed economies, and it is the poor and unskilled in both developed and developing nations who are most vulnerable to the dislocations and changes that will inevitably accompany further global integration.

The warning signs are already visible. Disparities between the rich and poor continue to increase, both between developed and developing nations, and increasingly within nations themselves. China's Gini coefficient<sup>24</sup> — a measure of income inequality — is climbing inexorably towards 0.50, and in the US between 1990 and 2000, real earnings of low-wage workers fell while the earnings of high-wage workers grew significantly. Concerns over the unequal distribution of the benefits of globalization have even prompted Ben Bernanke, the chairman of the US Federal Reserve, to call on global policy-makers to do more to ensure the benefits of globalization are widely spread within their countries.<sup>25</sup> We will explore these divides further in Chapter 3.

### Attribute 4 Multiculturalism's discontents

Diversity — in its biological, ecological, human, and social forms — should be a keystone of a globalizing world. So should multiculturalism. But both are under challenge. Take language. Linguists estimated that 10,000 years ago there were some 5–10 million people and perhaps 12,000 languages, whereas today there are over 6.5 billion people and less than 7,000 languages.<sup>26</sup> By the end of this century, around 90% of our remaining languages may well have disappeared.<sup>27</sup>

At the same time, it is increasingly clear that globalization does not guarantee successful multiculturalism. Take a look at Amy Chua's book *The World on Fire*.<sup>28</sup> Her argument is summed up in her subtitle, 'How Exporting Free-Market Democracy Breeds Ethnic Hatred and Global Instability.' Provocative, but in many cultures uncomfortably true. The aftermath of 9/11, for example, has spotlighted the difficulties inherent in creating and sustaining genuinely multicultural societies. And this challenge is likely to be intensified as various forms of migration — including the movement of environmental refugees — build in the coming decades. A parallel, linked trend is the rise in subcultures and ideologies among both traditional diasporas and new web-based communities. Companies that successfully crack the code of doing business multiculturally, however, will almost automatically be among the iconic businesses of the future.

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#### Attribute 5 Climate insecurity

Adding fuel to the flames, since the 9/11 attacks there has been a heightened sense of insecurity in many countries. Partly as a result, security has been defined very narrowly, with a focus on surveillance, policing, and military intervention. However, real security comes in many forms — for example, in relation to water, food, energy, employment, and the environment. Among positive trends, Al Gore's film *An Inconvenient Truth* has helped build public concern around one of the most critical environmental issues of our time, the issue of climate change — which played into growing concern driven by natural disasters like Hurricane Katrina and the growing range of atypical weather patterns experienced in almost every corner of the planet.

The UK Stern report on the economic implications of climate change noted that the danger of not taking action on climate change could be equivalent to 20% of GDP or more, whereas the costs of action to cut greenhouse gas emissions to avoid the worst impacts of climate change could be limited to around 1% of global GDP a year.<sup>29</sup>

Meanwhile, China plans to build 562 new coal-fired power stations by 2012<sup>30</sup> (that is approximately one added every three to four days), which could undo any gain under the Kyoto protocol many times over.

Add to this reports from groups like WWF and the Millennium Ecosystem Assessment that conclude that human consumption now significantly exceeds Earth's capacity to regenerate its resources and it creates a potentially explosive head of political steam.

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#### Attribute 6 Governance vacuums

A striking feature of the current era of globalization is the relative lack or weakness of governance systems at the global level. Think of the beleaguered UN. As companies have become more international, so individual national policy frameworks have become less significant. Globalized financial markets have also shifted power away from nation states to global actors such as multinational corporations and to some extent also to international institutions such as the International Monetary Fund (IMF) and WTO. At the same time, the importance of civil society organizations is growing. But, however powerful and important civil society may become, it is too often dispersed, fragmented, ill-coordinated and far from coherent. It may be moving to fill the global governance vacuum, but governments — local, national, regional, and ultimately global — will also be essential.

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#### Attribute 7 Blessed unrest

Responding to all the trends discussed above, from Greenpeace to al-Qaeda, a proliferating web of networks has evolved in recent decades. Paul Hawken's latest book, *Blessed Unrest*,<sup>31</sup> is sub-titled 'How the Largest Movement in the World Came into Being and Why No One Saw It Coming.' He explores the growing worldwide movement of organizations dedicated to restoring the environment and fostering social justice. This is a movement, he says, with no name, leader, or headquarters, but it can be seen in every city, town, and culture.

It is organizing from the bottom up and is extraordinarily creative. Citizen activism has been powerfully enabled by the rise of new media such as blogs, podcasts, and internet search engines, which give voice to millions and create a culture of online global activism. As *Wired* magazine recently put it, 'Google is not a search engine. It is a reputation management system.'<sup>32</sup> Which means that business has more opportunities for influencing its own image and reputation, but also that the global citizenry has more power to put it under the microscope through practices such as 'culture jamming' and critical blogging.

Once again, such processes have been powerfully facilitated by the information and communication technologies already mentioned, by growing overseas travel, and by a general opening out of our civilization — as illustrated by the spread of stakeholder engagement processes and open source initiatives. Some years ago the World Business Council for Sustainable Development (WBCSD) produced a set of three scenarios — FROG!, GEOpolity, and Jazz<sup>33</sup> — sketching out a future where things go from bad to worse. (FROG stands for 'First Raise Our Growth,' and symbolizes the fate of the proverbial amphibian in water slowly brought to the boil). A second is where a Global Ecosystem Organization (GEO) spearheads government-led responses. And a third, Jazz, where a rolling array of networks, alliances, and joint ventures lead the charge — and the change. Jazz is a future world in which civil society movements play an increasingly central, crucial role. We seem to be living in an increasingly jazzy world. Which brings us on, in Chapter 2, to the new players.

Panel 1.1  
**Dark sides of globalization**

Like the Moon, globalization has its dark sides. Illicit trade has grown and expanded its portfolio of products in recent years, with the spotlight increasingly on arms, drugs, human beings, intellectual property, and counterfeit money and products. Although disruptive to legitimate business, illicit trade is often intertwined with it, as when Chinese and Philippine factories produce unlicensed manufactured goods on second shifts.<sup>34</sup> Many of these trades are complex and well organized. The internet helps things along by providing 'online markets,' for example with prostitutes from Moldova or the Ukraine advertised online and shipped to the West. Criminals thrive on increased international mobility, while the same factor weakens the agencies in charge of hunting them down.

The problems are considerably aggravated by the existence of weak or failed states. NGOs have become central actors in the battles against illicit trade, partly because they often have abilities and tools that governments don't, including the ability to work across borders without the need for diplomatic processes, or raising funds globally for very specific purposes. But unless major change takes place in the relevant global governance, regulation, and enforcement mechanisms, the world will face a growing number of 'geopolitical black holes.' The paths to action would be very different in each of the four scenarios sketched in Chapter 4, from visionary leadership to the letting loose of a germ warfare weapon or detonation of an atomic device in the heart of a world city.



'The drivers of tomorrow's globalisation? Religious intolerance, characterized by a global divide along the lines of religion. And a resurgence of a value-based dialogue among younger people, more like the Sixties, to fight growing religious intolerance!'

**Jeroo Billimoria**

Chair, Aflatoun / Child Savings International,  
 The Netherlands / India

responding to SustainAbility Network Survey



# New Players





Just as Yao Ming's explosion into international basketball and 2008's Beijing Olympics mark China's rise in the world of sport, so the likelihood grows that new players will powerfully shape markets, popular culture, and global politics. They will play existing market games differently — and introduce new rules and new games.



# Emerging Talent

## 2



New players are surging onto the global playing field — and with them comes new talent. While globalization has been a predominantly North-led process, the balance now seems to be shifting — in fits and starts, but predictably — in favor of the South, particularly of the emerging economies. Goldman Sachs' influential report in 2003, *Dreaming with the BRICs*<sup>35</sup> forecast that Brazil, Russia, India, and China (the BRIC countries) would become an increasingly dominant force over the coming decades. By 2039, it was suggested, the BRIC economies together will be larger than those of the US, Japan, the UK, Germany, France, and Italy combined.

But since then China and India have tended to hog the limelight, as evidenced by their star status at the 2007 World Economic Forum in Davos, subtitled 'The Shifting Power Equation.' Brazil has made progress, true, but its pace and direction have been less certain. And Russia, while it remains a major player due to its natural resource wealth, has taken a U-turn and moved away from globalization as its north star to nationalization, particularly in its oil and gas sector.

In what follows, we take a brief look at China and India, at other leading emerging economies, at the emerging phenomenon of South–South trade, and at a number of countries that are significant in different ways — but which have been cast into the shadows by the growing focus on China and India. Then we take a quick look at the social and environmental implications of some of these trends.

### Emerging economies

With an annual GDP growth rate of 11%, China is now set to become the largest economy by 2035, rather than 2040 as previously predicted by Goldman Sachs. The implications are correspondingly huge. In 2006, China's GDP accounted for 5.5% of the world's total GDP, but it was achieved at the cost of 15% of world energy consumption, 30% of world steel consumption, and 54% of world cement consumption.<sup>36</sup>

One of the results of this resource demand is that trade between China and Africa jumped from \$3 billion in 1995 to over \$32 billion in 2005 — and is expected to double again by 2010.<sup>37</sup> In parallel, to secure resources and to strengthen diplomatic relations, China has boosted its aid to Africa, cancelled \$10 billion in African debt, helped transfer new technologies to the continent and increasingly been involved in peace-keeping operations. In the process, the country is having a growing geopolitical and environmental impact, whether it be via its support for undemocratic regimes in Africa or the knock-on effects of its soya consumption on the pace of Amazonian deforestation.

The scale of the coming changes is often hard to grasp. So while by 2007 China's direct investment abroad was just one-fiftieth of America's, HSBC chief economist John Edwards noted, 'As the financial system is gradually deregulated, China will become the headquarters of Chinese versions of General Electric, Exxon, Philips, Toyota, and Samsung. Already Chinese companies such as Lenovo, Haier, and CNOOC are beginning to compete with leading multinationals. It will not be long before Chinese businesses own more assets abroad than those of any other nation.'

Not far behind China is India. With a GDP growth rate of 9.2% and predicted to account for 17% of the world's GDP by 2050, third behind only to China and the US (see Figure 1.1 on page 12), India is on its own course for economic dominance.<sup>38</sup> Although sometimes compared to a lumbering elephant, alongside China's energetic dragon, the country is often felt to be more stable in its growth and, as a result, seen to be a better bet in the long term. Key strengths include its democratic politics, its education system, its facility in English, and consistent focus on the value added service sector. As a result, if China is becoming the world's factory, India provides the world's back office and IT support. But, as with China, that is likely to be a springboard for future economic evolution.



Indian companies are more visible globally than ever before, spending more than twice as much on overseas acquisitions as foreign companies have invested in India.<sup>39</sup> Interestingly, a majority of these acquisitions have been in the US and Europe (61%).<sup>40</sup> As a result, Indian companies like the Birla Group, Infosys, Tata Steel, and Wipro have become increasingly competitive and influential in their sectors internationally.

While not in the same league as India or China, Brazil and South Africa are two countries that are becoming economic and political players especially in their own regions. According to the IMF, South Africa currently ranks 28th in the world (just below Denmark), with its GDP one-tenth the size of that of China.<sup>41</sup> Brazil is about one-sixth the size of China, though its GDP is higher than that of India. Politically, these countries are important players. South Africa, for example, has played a key role in seeking an end to various conflicts and political crises on the African continent, including in Burundi, the Democratic Republic of Congo, and the Comoros, and has been promoting the economic, political, and cultural regeneration of Africa through the New Partnership for African Development (NEPAD). Brazil, too, has been a regional crisis manager in Latin America, as well as taking an influential role alongside South Africa and India to fight for a stronger and more formal role for emerging markets in global institutions such as the UN, the IMF, or the WTO.

Globalization has also seen significant growth in South–South trade, currently rising by 11% per year.<sup>42</sup> This is double the global rate, signaling the growing importance of regional trade blocks like the Association of Southeast Asian Nations (ASEAN) and Mercosur in Latin America, as well as bilateral trade between countries. According to McKinsey, the number of regional trade agreements increased from 50 in 1990 to 250 in 2005.<sup>43</sup>

Still, there is room for South–South trade to develop further. Indeed it is estimated that exports from one developing country to another currently account for just 6% of total world merchandise exports and 10% of world services.<sup>44</sup>

Perhaps counter-intuitively, the emerging economies prove to have had a relatively cautious approach to globalization generally. In the AT Kearney / Foreign Policy Globalization Index of 2006,<sup>45</sup> which measures the degree to which countries are more or less globally connected, these countries are clustered at the bottom end of the scale at 49th (South Africa), 51st (China), 52nd (Brazil), and 61st (India) out of 62 countries analyzed. One reason may be that in many emerging economies there is a perhaps understandable fear of ruthless foreign multinationals entering the domestic market at the expense of local industry. But a growing number of companies domiciled in such countries are becoming forces to be reckoned with on the global stage (Panel 2.1).

Open out the spotlight further and it is clear that there are many other countries sitting on the bench awaiting their chance to play. Whether it is Vietnam as the latest member of the WTO, or Thailand flexing its muscles by taking on the drug giants on HIV/AIDS, or oil-rich Venezuela, understanding the course, pace, and overall directions of globalization requires a broader view than considering only China and India.

### Thinking differently

Many new market entrants think differently from current incumbents and, indeed, often from one another. For one thing, they are likely to have a different understanding of the nature and role of the company and of its relationship with society. For example, while much of the Chinese economy has been privatized since the 1978 reforms that ushered in the socialist market economy, many of the largest stocks on the Shanghai Stock Exchange are state-owned enterprises.

In India, meanwhile, it is the family owned conglomerates that dominate, accounting for 50–60% of the share capital of listed companies. How these companies operate differs markedly from the operations of publicly listed private companies in the developed world. They are driven from a different set of values, either based on those of the state or those held dear by their controlling families. As a general rule, they also tend to be less transparent about their governance and decision-making processes.

As their economic influence grows, developing countries have also been questioning the values and objectives on which the rules of the globalization game are based, while trying to shift the rules in their favor. The WTO has been one battleground where these countries have been flexing their muscles. Brazil and India, for example, are currently the fourth and fifth most active users of the WTO dispute settlement mechanism,<sup>46</sup> as well as the leaders of the G20 group of countries seeking fairer rules in relation to agricultural subsidies. Despite this willingness to use global institutions, and India and Brazil's bids for a leadership role in the UN, the emerging economies tend to have a different approach to multilateralism, with greater value placed on the older norms of sovereignty and non-interference.

So far, the emerging economies' geopolitical power has not matched their growing economic might, in no small part due to an international system of global institutions whose power balance reflects the world as it was in 1945. Still, these countries are playing a growing role in world affairs – among other things, as sources of international development aid and foreign direct investment, as arms exporters, as peace-keepers, as controllers of oil and other commodities, and through their ideological influence and use of 'soft power'.

From a business perspective, it is increasingly clear that different emerging economies cannot be addressed with the same market entry strategies and business models. Take governance as an example. China's one-party rule enables the government to take unilateral decisions and to move swiftly to implement them at any cost, financial or human. On the other hand, India's democracy makes the pace of change slower as different factions have very different viewpoints. There are also major differences in public expectations. Consider the setting up of Special Economic Zones (SEZs) in China and India. Seen positively as an important enabler for the expansion of manufacturing in China, SEZs triggered a different response in India. When the government tried to set up such zones recently there were intense local protests about the use of agricultural land, the resettlement of those affected and the compensation to be paid and the employment conditions of those who work there, bringing the process to a (probably temporary) halt.

### Growing divides

Given that one of the central tenets of sustainable development has been equity – both intra- and inter-generational equity – the growing economic, social, and environmental divides created by current forms of globalization are a major concern (Chapter 3). And it is often hard to work out from the global statistics what is going on. The proportion of people living on less than \$1 a day globally fell to 18% in 2004, for example, with an estimated 985 million people living in extreme poverty, compared with 1.25 billion in 1990.<sup>47</sup> But there has been a rise in extreme poverty in Latin America and Africa that is masked by the improvement in China and India. In China alone several hundred million people have been raised out of abject poverty and the Indian middle class has swelled to 300 million, equal to the population of the US.

But the benefits are unevenly spread, and the linked processes of market liberalization, privatization, and globalization have generated major losers alongside the undoubted winners.

In China, for example, the income of the very poorest 10% of the population fell by 2.5% in the first years of this century,<sup>48</sup> as the wealthy have been getting wealthier. In 1998, it took just \$6 million to join the club of the 50 wealthiest in China, whereas now it takes \$100 million to reach the top 500.<sup>49</sup> Or in South Africa, despite policies around economic empowerment, the government has been struggling to improve the lot of the black majority since the end of apartheid.

China, South Africa, and Brazil (although not India) all have Gini coefficients above 0.4. Inequality on this scale impedes progress by limiting government finances, increasing social unrest, and limiting potential domestic economic demand. China, strikingly, has acknowledged that inequality has already led to a rapid increase in the number and scale of public protests. It is the lack of economic opportunity, especially when part of society is seen to benefit but these benefits are not shared, which often creates unrest and social instability.

On the environmental front, the economic growth of the emerging economies is also having major consequences. China, India, Brazil, and Russia are collectively already responsible for 30% of global CO<sub>2</sub> emissions – and by 2030 China's emissions are projected to be one-third higher than US levels, even before China's economy surpasses that of the US.<sup>50</sup> Currently China is setting up a coal power plant almost every week to meet its energy demands. The increase in global-warming gases from China's coal use is predicted to exceed that for all industrialized countries combined over the next 25 years, surpassing by five times the reduction in such emissions that the Kyoto Protocol seeks.<sup>51</sup> Urbanization, water shortages, pollution, and biodiversity loss are all predicted to be major domestic environmental challenges.

Despite negative and sometimes overly simplistic media coverage, however, the emerging economies are not totally insensitive to the challenges of rampant inequality and environmental devastation. The Chinese government has acknowledged this challenge as it shifted the focus of its rhetoric from economic growth to a 'harmonious society.' It has also set an ambitious target for energy conservation: to cut the average amount of energy needed to produce each good or service by 20% over the next five years.<sup>52</sup> India's Supreme Court is becoming more active on environmental issues. South Africa has enshrined socio-economic and environmental rights in its constitution. And both China and South Africa have emphasized the green credential of their games, the 2008 Olympics and the 2010 World Cup respectively.

Nevertheless, such countries face a series of systemic challenges including power imbalances, endemic corruption, and weak enforcement capacity, which threaten to slow progress towards more sustainable development. This presents challenges to international institutions, civil society, and media, and it is also throwing up a series of issues for major companies operating globally such as Shell, Nike, Starbucks, and Coca-Cola. As emerging economies expand their influence and operations, we need to get a far better sense of the emerging economy players, how they see the game, how their strategies and tactics are likely to evolve, and how we can best influence them to build responsibility and sustainability priorities into their rules, rewards, and penalties.

Panel 2.1  
Emerging global challengers<sup>53</sup>

Ask most western NGOs and journalists to run through the names of companies from emerging economies they know well and the list will be a short one. Yet, as the Boston Consulting Group put it in a recent survey of the 'new global challengers,' work led by their Beijing office, 'The Chinese manufacturing company Techtronic, the Indian pharmaceutical company Ranbaxy or the Russian oil giant Lukoil may soon have the power to shake the established global players by virtue of their growth rates, expansion ambitions, and innovation capability.'<sup>54</sup> When BCG calculated the Top 100 New Global Challengers, on the basis of a survey of more than 3,000 firms in 12 emerging markets, they focused on those with minimum revenues of \$1 billion and innovative business models, and eliminated joint ventures and affiliates of global companies. Together these 100 firms employ more than 4.6 million people, and have revenues over \$715 billion – 30% of which are earned abroad.

The majority originate from China (44), India (21), Brazil (12), and Russia (7), with Egypt, Indonesia, Malaysia, Mexico, Thailand, and Turkey also represented. They include companies like: **BYD Company** (China), the world leading manufacturer of nickel-cadmium batteries and possessing a 23% share of mobile-handset batteries; **Cemex** (Mexico), one of the largest cement producers, known also in Mexico for its work with underserved markets; **Natura** (Brazil), a leading Brazilian cosmetics company whose brand is strongly linked to sustainable development; **Petrobras** (Brazil), the largest emerging economy company in the 'Forbes 2000'<sup>55</sup> and a member of the Dow Jones Sustainability Index; **Ranbaxy Pharmaceuticals** (India), a leading generic pharmaceutical producer; and **Wipro** (India), the world's largest independent R&D Services provider.





# New Risks



The stakes were colossal in the Cold War, when game theory was used to shape nuclear deterrence strategies. Now, as world population surges towards the 9–10 billion mark, globalization undermines entire industries, energy prices soar, mega-cities sprawl, and the risks of terrorism, global pandemics, and abrupt climate change loom.



Whether or not companies choose to play the sustainability game, the stakes are rising for all. Current economic growth is unprecedented — and the potential opportunities are huge. No less than 65% of the world leaders from business and government recently surveyed by the World Economic Forum were of the opinion that the next generation would be more prosperous, but they also felt that the world would be less secure and safe.<sup>56</sup> Among the challenges that are now routinely covered at WEF and other global summits are climate change, the risk of global pandemics, the desperate plight of billions of people in terms of poverty, dirty air, and water, and — often — a virtually complete absence of opportunity and hope. Historically, such conditions have bred dissent and, particularly where there are growing numbers of young underprivileged people (specifically young men), revolutions.

The likely scale of such problems — coupled with the fact that they are traditionally seen as the responsibility of government — typically shuts down most business brains. But business publications like *BusinessWeek*, *Fast Company*, the *Financial Times*, and *Fortune* are now switching on — and trying to switch on their readers — to the opportunity potential in developing business solutions to the planet's biggest issues.

Anyone who recalls ex-GE CEO Jack Welch's heyday may also recall that he was no friend of the green lobby. Yet Jack and Suzy Welch's February 26, 2007, *BusinessWeek* column spoke of the 'global warming wager', in terms that represented a serious shift of position. While admitting that they 'still don't know' how serious the challenge will be, they argue that the evidence now suggests that doing nothing strategies would be 'bad business.' Business leaders should act as if the risks are real, they counsel. Even if the risks prove to be less serious than originally feared, 'your plants will use less energy and emit fewer effluents. Your packaging will be more biodegradable, and your new products will be able to capture any markets created by severe weather effects.'

They noted that the 'perfect analogy is globalization.' Companies that failed to wake up in time to the flattening of the world lost progress, profits, and jobs.

## Ten divides

When successful bookmakers take bets on horse races and other sporting events, they try to understand the 'form' of the horses or players, and all other factors likely to have a major impact on the outcome. Probing behind the sorts of issues that are surfacing at the World Economic Forum and elsewhere, it is clear that the world today is characterized by a series of 'divides' — between the haves and the have-nots, the educated and the illiterate, the wealthy and the poor, and so on. In 2000, the UN adopted the Millennium Development Goals (MDG), which a handful of major companies have adopted as a framework for their efforts in this field. While we strongly support the MDG agenda, we find it easier to think in terms of ten great divides, briefly summarized below.<sup>57</sup>

### Divide 1 Demographic

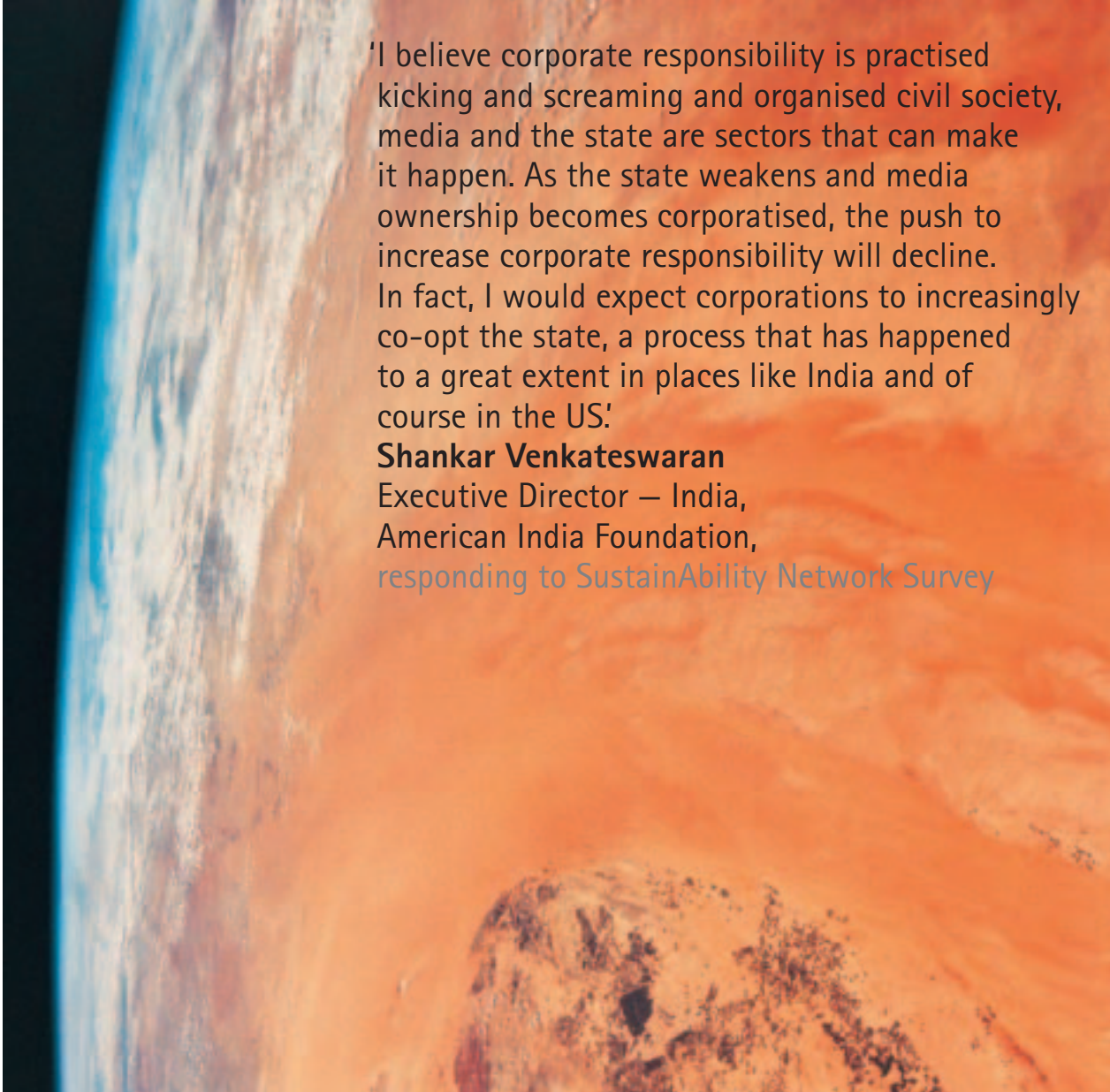
Demography is a powerful driver of social and economic change, including market size. The world is thought to be heading for a population of 9 billion by 2050, with 95% of the current growth expected to come from developing countries.<sup>58</sup> A parallel trend involves the aging workforce in the developed world, where the working population is forecast to shrink from 740 million to 690 million people by 2025. Adding to this disruption will be China's ageing population where, by 2050, elderly residents are forecast to make up 31% of the population. In the remainder of the developing world, by contrast, the working age population is set to increase by 33% from approximately 3 billion to 4 billion people. Meanwhile, birth rates in developed nations (including a number of EU states) are falling below the population replacement level (at 2.1%).<sup>60</sup> Key causes for declining fertility rates are increased income, changing lifestyles, and pressures of work — all linked to globalization.



Panel 3.1  
**Climate Change:  
betting the planet**

The world is heating up and there could ultimately be temperature rises of up to 6.4°C – with a 4°C warming likely – by the end of the century if action is not taken, according to the Intergovernmental Panel on Climate Change (IPCC).<sup>59</sup> Sea ice is decreasing, glaciers are melting, sea levels are rising, weather patterns are unpredictable, typhoons and storms are on the rise, deserts are expanding, lakes are disappearing, and agricultural patterns are shifting. This is a set of risks to rival those our species wrestled with during the Cold War. We are pursuing a different form of the mutually assured destruction (MAD) strategy of those years; this time we are following a largely unintentional, unplanned strategy of mutually assured disruption.

In the deliberately cautious words of the IPCC, an average global temperature rise of 4°C would wipe out hundreds of species, bring extreme food and water shortages in vulnerable countries, and cause catastrophic floods that would displace hundreds of millions of people. The report's authors agree that human activity is 'very likely' the cause of this warming, meaning that they make this statement with 90% certainty. And things will likely get much worse, with others understandably eager to join the consumerist party. Already, China and India together use 42% of the world's coal, which is a major contributor to climate change, and their appetites can only grow. Fasten your safety belt.



'I believe corporate responsibility is practised kicking and screaming and organised civil society, media and the state are sectors that can make it happen. As the state weakens and media ownership becomes corporatised, the push to increase corporate responsibility will decline. In fact, I would expect corporations to increasingly co-opt the state, a process that has happened to a great extent in places like India and of course in the US.'

**Shankar Venkateswaran**

Executive Director – India,  
American India Foundation,

responding to SustainAbility Network Survey

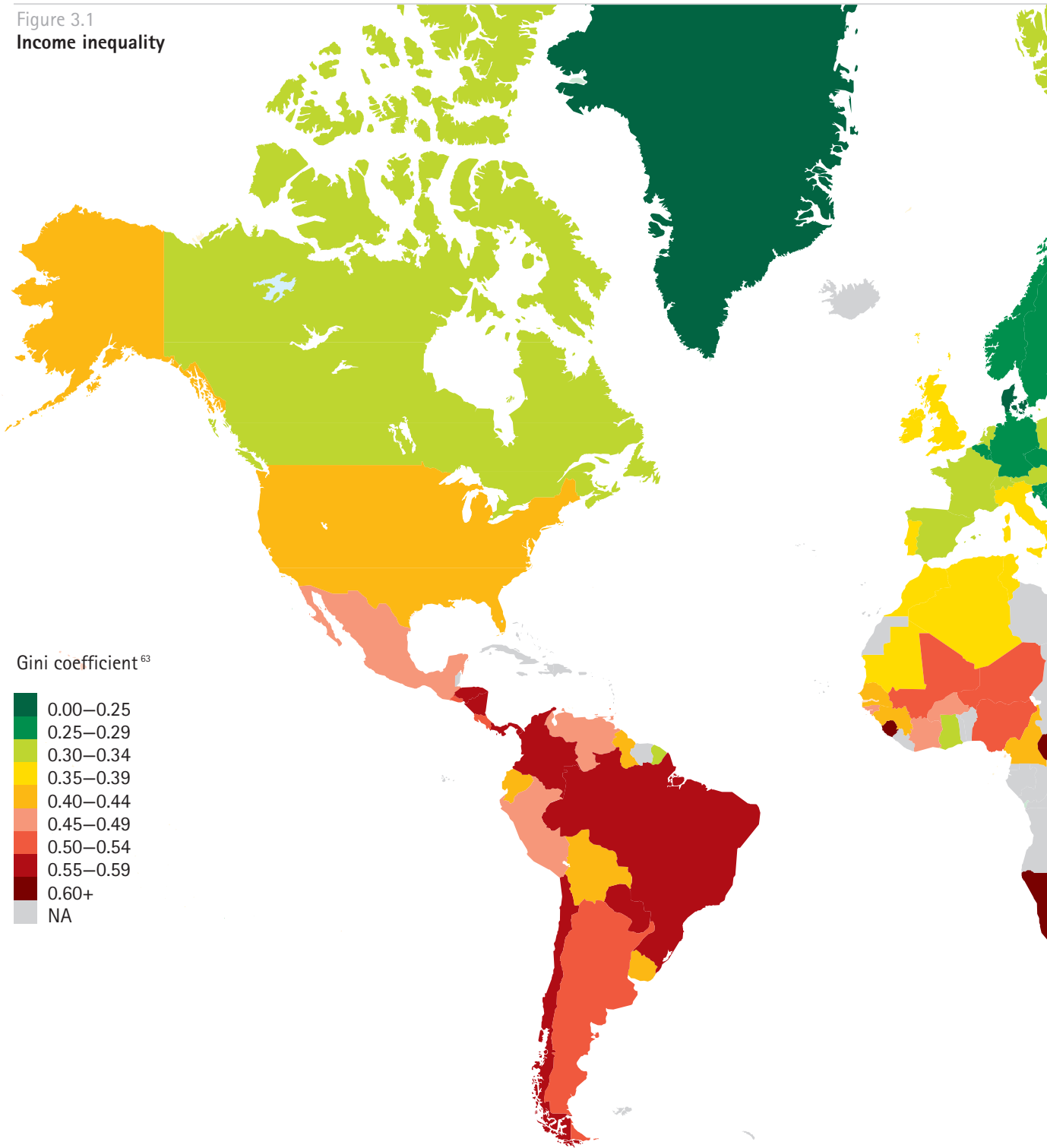
As a result, developed countries face the high costs of supporting ageing populations. They also need younger productive workers, a need likely to be met by migrants – usually people moving from countries facing poverty and insecurity to more developed nations. The number of global migrants reached 191 million people in 2005, with 1 in 5 moving to the US, but also with 40% moving from one developing country to another.<sup>61</sup>

Urbanization is being fuelled by migration from agrarian societies to fast-growing cities. According to the Worldwatch Institute, 60 million people are added to cities yearly and UN-HABITAT estimates that in 2007 half of the world population will come to live in urban areas.<sup>62</sup> But the real crunch point will likely be young people. Struggling countries with exploding populations will become powder-kegs.

## Divide 2 Wealth

First, the good news. China has achieved the greatest sustained poverty reduction in the recorded history of the world, lifting 300 million people out of absolute poverty (defined as living on less than a \$1 a day) since 1981.<sup>64</sup> By 2010, 450 million Indians are expected to enjoy middle-class incomes.

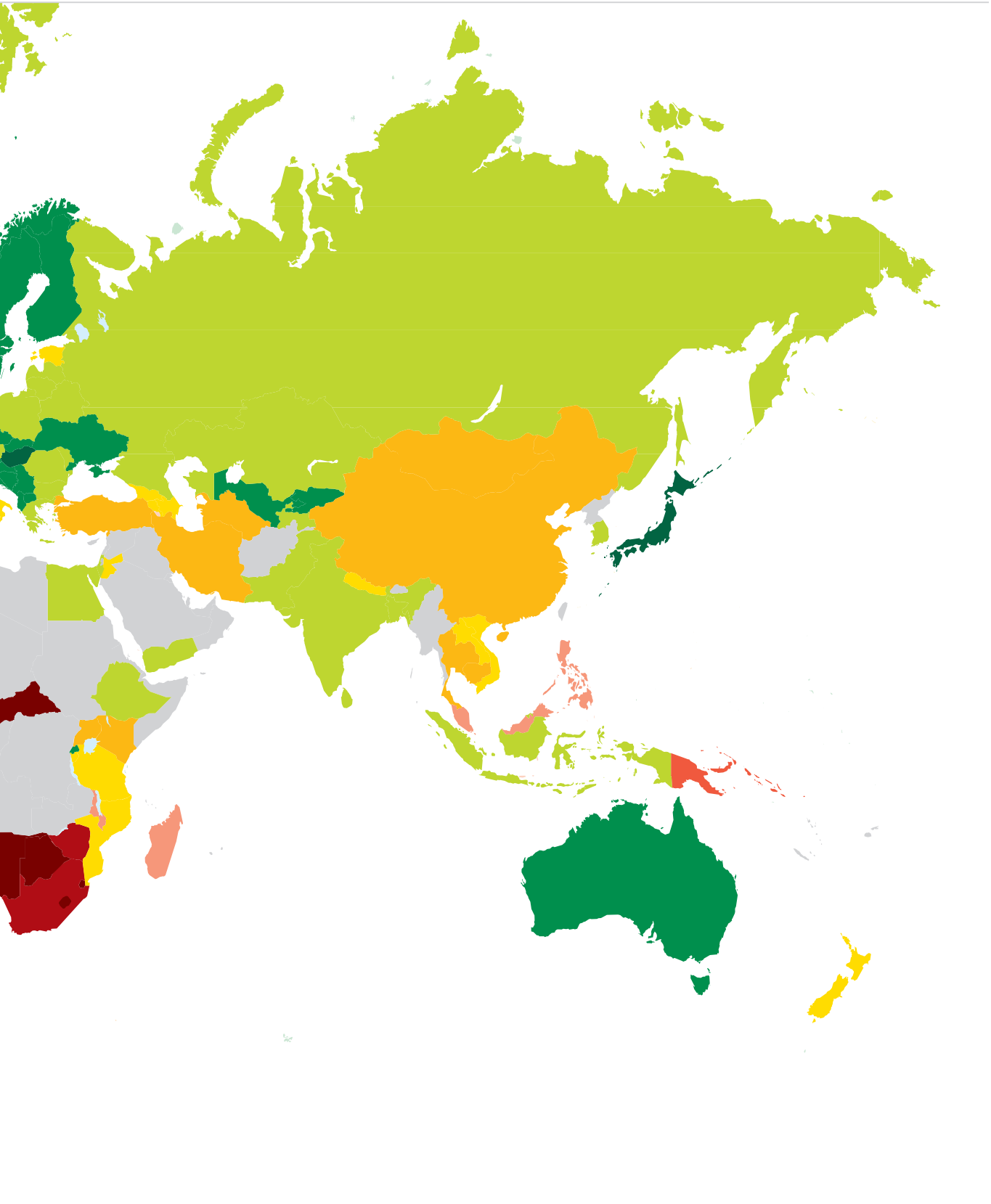
Figure 3.1  
Income inequality



But there is a flip side. Even though China now has over 300,000 new millionaires, nearly 120 million people still live in absolute poverty. Meanwhile, global wealth divides are opening out dramatically. Today 40% of the world's wealth is owned by 1% of the population, while the poorest 50% of the population owns just 1% of global wealth.

Income gaps are widening in 53 countries, representing 80% of humanity. These are not just statistics. They signal the risk of social unrest and insecurity coming from a sense of injustice and unequal opportunities. Rapid industrialization and urbanization are leading to high levels of social inequality.

Gini coefficients can be a good indicator of when this inequality will become a critical concern, as countries with coefficients above 0.4 are thought to be at risk from internal social tensions. China ranks at 0.46 and Brazil at 0.54 — one of the highest levels in the world.





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### Divide 3 Gender

A key concern holding back social development — and the evolution of markets — is the position of women. While in western societies they are making significant progress on gaining equal access to education and job opportunities, in many developing countries women are held back, often lacking even the most basic of human rights. Two-thirds of the world's 1 billion illiterate people are women and 984 million of the illiterate live in the developing world.<sup>65</sup>

This has an impact not only on these women, but on the health, nutrition, and education outcomes of their families. Girls lag behind boys in educational enrolment and are less likely to stay in school due to family demands and lack of funds. This disparity grows still further at higher levels of education. Women in developing countries are typically engaged in work 12–18 hours a day, every day of the week. Gender-based violence — in various forms including rape, domestic violence, 'honour' killings, and human trafficking — exacts a heavy toll on women's health and wellbeing. More positively, women represent an increasing share of the world's paid labour force — over a third in most regions, although a majority of this is in the informal sector. Globalization has opened up jobs for women in factory production which, despite concerns about working conditions and pay, has at least enabled them to be wage earners for the first time.

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### Divide 4 Nutritional

The world now produces enough food for everyone, but over 850 million people continue to face chronic hunger, coupled with a range of issues arising from malnutrition.<sup>66</sup> Strikingly, hunger kills more people than AIDS, malaria, and tuberculosis combined.

Every year, 6 million children under five die from hunger and malnutrition. The most affected areas are southeast Asia and sub-Saharan Africa, with Africa showing almost a 50% rise in hungry people in recent years. Among the causes: natural disasters, poor infrastructure and distribution, low levels of productivity, loss of agricultural land to desertification and urbanization, war, bad economic policies, trade distortions, and poor governance.<sup>67</sup> Most of the time, chronic hunger has less to do with the availability of food than with its affordability. With more of the food chain being taken over by businesses and prices dictated by global markets driven by the North, the issue of affordability will grow. And this will be further exacerbated by the increased demand for bio-fuels, which will compete with food production for the agricultural land and investment with food production. Witness the recent protests in Mexico against the rise in the price of tortillas, a staple food, due to decreased supply of corn from the US, which is now being diverted into ethanol production.

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### Divide 5 Environment and resources

At current consumption levels, the Earth can support perhaps 1.8 billion people, not 6.5 billion — indeed, it is argued, three planets would be needed to support globalized lifestyles like those enjoyed in Europe and the US if all the world consumed at the same high levels.<sup>68</sup> And the overall pressure on natural resources is intensifying. While net deforestation rates have fallen in the period 1990–2000, 13 million hectares of forest are still lost each year.<sup>69</sup> As environments dry out, water wars are predicted, especially as 40% of fresh water resources are along national borders. Currently 1.1 billion people have no access to clean water and sanitation, and one-third of the world population lives in water stressed areas.<sup>70</sup>

At sea, many major fisheries are in severe trouble, with the respected journal *Science* warning of a total collapse of fisheries by mid-century if current consumption rates continue. And the climate change threat is set to worsen as greenhouse gas emissions continue to rise. China is set to overtake the US as the biggest contributor with its emissions growing at pace with its economic growth, at 9.3%.<sup>71</sup> The poor bear a disproportionate burden of the degradation of ecosystems, being highly dependent on natural resources for their lives and livelihoods.

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### Divide 6 Health

Our health is linked to many other factors discussed here, including wealth, nutrition, resources, and a healthy environment. Climate change, for example, is estimated to be responsible for 2.4% of all cases of diarrhoea worldwide and for 6% of all cases of malaria, figures that are likely to grow rapidly as climate change gets into its stride.<sup>72</sup> Some 39.5 million people live with HIV/AIDS in the world, now the fourth largest killer disease.<sup>73</sup> Two billion people are infected by tuberculosis.<sup>74</sup> One million people die from malaria every year — and up to 90% of these deaths are in Africa.<sup>75</sup> More than half a million women die each year during pregnancy or childbirth.<sup>76</sup> And at least 1 billion people suffer from neglected tropical diseases such as cholera, guinea worm disease, and lymphatic filariasis.<sup>77</sup>

While treatment is available for many of these diseases, the poor and the vulnerable around the world are unable to access affordable medicines. These include people in developing countries in Africa, Asia, and Latin America as well as the disenfranchised in the developed countries like the US where healthcare is expensive.

## Divide 7 Educational

Education enhances human capabilities in improving family health and increases employment opportunities, enabling people to escape the poverty trap. Moving to a knowledge economy requires literacy, which also makes people more politically adept and able to participate in issues of local and national governance. In the developing world, primary education levels have increased to 86% — no mean achievement — though sub-Saharan Africa still lags behind and rural children are less likely to attend school.<sup>78</sup> About 100 million children, primarily in sub-Saharan Africa, and South and West Asia, are not enrolled in primary education, and only 47 countries have achieved universal primary education.<sup>79</sup> Key barriers to education are the lack of investment, the inability of parents to afford education (89 countries still charge fees), health problems (especially HIV/AIDS), and armed conflict and civil unrest.<sup>80</sup> While primary education is critical, there also is a need for more skills-based and higher education. Meanwhile, many students travel overseas for higher education, with the US attracting the greatest number of foreign students. Although some go home, others migrate for good — resulting in a net brain drain from their home country.

## Divide 8 Digital and information

Even though the number of internet users worldwide topped 1.1 billion in 2007, only 3.6% of Africans and 10.7% of Asians have internet access.<sup>81</sup> In Africa, there are only 14 million phone lines — in contrast with China, the largest cell phone market in the world, which has 19% of the world's subscribers. Such divides take many forms: rural vs urban; poor vs rich; minorities vs majorities in societies; old vs young; disabled vs able; and developing nation vs developed nation.

They are crucial because digital technology enables greater access to information, greater participation in governance, better market intelligence, more social connectivity, and access to healthcare advice, financial services, and distance learning.

## Divide 9 Security

Insecurity has come into dramatic focus since the 9/11 attacks and subsequent invasion of Iraq. Even though the number of intra-state armed conflicts has declined by 36% since the early 1990s,<sup>82</sup> there have been 13 million deaths in large-scale conflicts from 1994 to 2003. And over 12 million of these were in the poorest areas of the world in sub-Saharan Africa, western Asia, and southern Asia.<sup>83</sup> Not surprisingly, these regions are also home to three-quarters of the world's 37 million refugees and displaced persons. While it is hard to measure whether the world is more or less secure today than it was a decade ago, the impact of these conflicts and wars is immense — both in terms of the collateral damage to lives and property, as well as to people's sense of wellbeing. Very often insecurity and conflict come in the form of terrorism, which people may resort to based on their beliefs or their sense of injustice. And the problems, according to the Central Intelligence Agency (CIA), will likely get worse.<sup>84</sup>

## Divide 10 Governance

Many of the trends briefly discussed above link back, directly or indirectly, to the quality of national (and in some cases regional or even global) governance. Ill-governed countries and regions make poor long-term markets. Until recently, governance models were mainly delineated along communist, socialist, and capitalist lines.

But this pattern is breaking down, with communist China now redefined as single party capitalist. Socialist, 'self-sufficient' India, meanwhile, is liberalizing its markets and allowing the private sector into what was previously public sector space. Oddly, given their much-vaunted free-market positionings, both America and Europe seem wedded to many protectionist measures, especially on agricultural production. Crucially, governance also spans issues like corruption and adherence to human rights.

As these divides evolve, they will generate complex interference effects, sometimes helpful, sometimes not. But it is no accident that organizations like the World Economic Forum, the Clinton Global Initiative, and the CIA are paying growing attention. Although data suggests that the post-World War II era has seen — despite a fair few hiccups along the way — a fall in the overall level of conflict, the economic, social, and environmental divides outlined above have the potential to spawn tremendous tensions and growing levels of conflict in the decades ahead. In Chapter 5, we focus on some of the trends that will determine whether our globalizing economies, businesses, and societies manage to address these challenges competitively, effectively, efficiently — and in time.



# New Games





In Blackjack, players aim for a perfect score of 21. If they draw too many cards and go over, they 'go bust.' Similarly, businesses that fail to achieve '21' business models, technologies, products, and services — adapted to the new century — risk going bust. The risks and opportunities they face will reflect the scenarios that play out.



# Twenty-One or Bust

## 4

So how will all of this play out? To test our own thinking, we began to mutate a set of scenarios developed as part of our evolving work on social entrepreneurship.<sup>85</sup> Adopting and adapting the basic framework, we evolved the economic scenarios presented here.<sup>86</sup> Late in the game, it struck us that they could be symbolized in terms of the suits used on playing cards: diamonds, clubs, spades, and hearts. As shown in Figure 4.1, the scenarios range from breakdown (Diamonds) to breakthrough (Hearts), by way of two paired scenarios, in one of which environmental sustainability is used to justify widespread social inequity (Clubs) and in the other of which narrowly defined quality of life trumps environmental sustainability (Spades). As in the card game Blackjack, the aim is to score 21 (that is, viability through the 21st century) and to avoid 'going bust.'

Here, in sequence, are the scenarios, from the worst outcome to the best. They are all based on a similar set of assumptions:

- 1 Globalization continues in the short term (2007–10), though several scenarios diverge thereafter.
- 2 Asian economic growth accelerates, but with some major hiccups along the way.

- 3 Our economic models increasingly reflect — and shape — our willingness to balance social and environmental priorities.
- 4 Corporate citizenship either expands to embrace new forms of social and environmental entrepreneurship, or contracts sharply.
- 5 Key drivers of change include demographics, events (among them acts of terrorism, outbreaks of disease, and the impacts of climate change), and decisions (with politicians winning back a share of the influence ceded in recent years to business leaders).
- 6 And the environmental, social, economic, and governance priorities that were lumped together under the sustainable development thinking move powerfully into the mainstream, though this is only likely to be truly effective in the sort of world painted by our last scenario, Hearts.

In the interests of communication, we have tried to strip down the scenario content to the basics. Our aim through SustainAbility's 21st year (2007–08) is to further develop the scenarios, applying them to our six strategic sectors.<sup>87</sup> For each scenario, we offer a brief summary and then work through a series of events and milestones that produce the scenario end-state.



Figure 4.1  
**Future scenarios**

Society wins

Environment loses

Environment wins



### Spades

Democratic societies open out higher living standards to growing populations. One key consequence is that natural resource prices rise, but another is that ecosystems are progressively undermined, with most governments unwilling to take the political risks of asking voters to make sacrifices in favor of the common good. The challenges are managed to a degree, thanks to more open societies, but not well enough. Deteriorating environmental conditions gnaw at the islands of affluence.

### Hearts

This is a world in which demography, politics, economics, and sustainability gel. It is the future that the Brundtland Commission pointed us towards. The early years of this scenario, however, are rough, with a global pandemic shutting down global trade. But in this case the challenges come in forms that drive positive responses, underlining the importance of shared solutions and inclusiveness. Over time, virtuous spirals of improvement set in, in most places. The outcome: a second Renaissance, but across a larger canvas.

Society loses



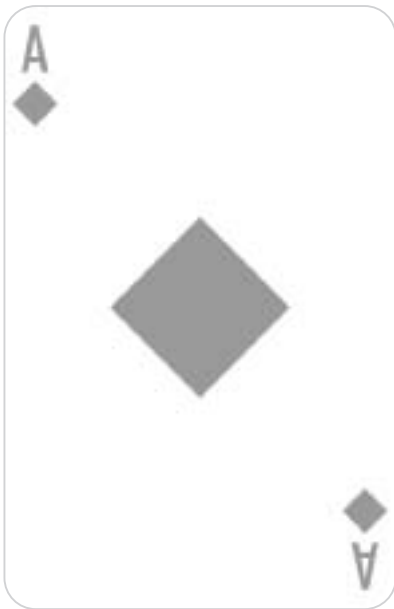
### Diamonds

This scenario is bleak – a domino-effect world, in which instead of Adam Smith's invisible hand, our invisible elbows knock over a series of economic, social, and environmental dominoes. Demographic trends and the spread of western lifestyles devastate ecosystems. The challenges come in forms that disable decision-makers and overwhelm society's ability to respond effectively. Over time, as fear closes down thinking and creativity, vicious spirals develop in politics, governance, economics, and technology.

### Clubs

This is a world in which, among other things, the elites learn how to use environmental sustainability as an excuse for denying the poor access to their fair share of natural resources. One outcome is a slowing of the destruction of ecosystems locally, but this future is characterised by protracted periods of social tension – broken with increasing frequency by insurrections. The waves of change build fitfully, chaotically, with closed societies and communities often operating in denial for extended periods. Over time, this erodes islands of sustainability.





Diamonds

### Headlines

This scenario is bleak and in many respects it aligns with the future challenges outlined in Jared Diamond's book *Collapse*.<sup>88</sup> This is a domino-effect world, in which instead of Adam Smith's invisible hand, our invisible elbows knock over a series of economic, social, and environmental dominoes. Demographic trends and the spread of western lifestyles and consumption patterns overwhelm ecosystem and undermine natural resource availability. The challenges come in forms that disable decision-makers and overwhelm society's ability to respond effectively and in time. The waves of change SustainAbility has tracked since the early 1990s begin to peter out. Over time, as fear closes down thinking and most forms of creativity, vicious spirals develop like dust devils in politics, governance, economics, and technology.

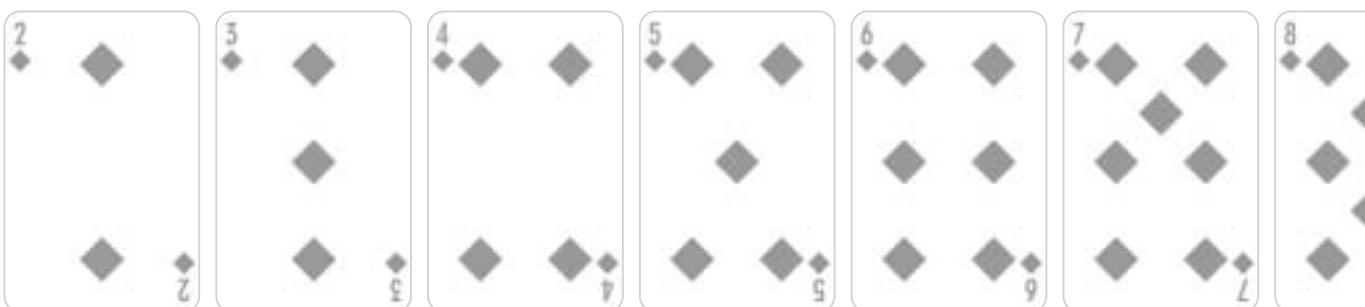
### Suit

In card games and Tarot readings, diamonds symbolize earthly matter and money, but can also stand for annoyance and spite. So-called 'blood diamonds' see a valuable natural resource catalyzing conflict. By extension, as a wider range of natural resources become scarce they become the cause of growing tensions and conflict. As population numbers soar, the value of human life plummets — further fueling the flames.

### Early years 2007–10

The Chinese oil workers killed in Ethiopia in 2007 signalled a new twist in the 'blood' oil story. The conflict in Darfur spreads, the world's first regional war sparked in part by climate change. And similar trends are soon seen elsewhere. Continued disregard for fishing quotas — added to political unwillingness to set ecologically meaningful quotas — lead cod stocks to falter and fail. In a domino effect, the pressure cascades to other fisheries. Dismayed, the UK fishing industry starts out by accusing its Spanish counterparts of virtual ecocide, but the focus soon switches to Asia, particularly to Japan, with a number of EU nations joining forces and, in 2010, launching an informal (but highly effective) boycott of Asian products.

In Australia, the 2007 drought — the worst in living history — continues into 2008 and 2009, causing widespread collapse in the country's farming community, and forcing the Government to reverse its resistance to the Kyoto process. The warming trend also triggers an accelerating cycle of forest fires and smog problems in Asia, with Indonesia among the worst affected. New forms of weather inversions hang over cities like São Paulo, Mexico City, Los Angeles, Paris, Kuala Lumpur, and Shanghai. In Amazonia, climate change further accelerates forest die-back. New diseases appear and spread as human populations come into contact with new vectors.



Business, having initially been interested in the commercial opportunities implied by the 2000 UN Millennium Development Goals, gradually loses heart. Major corporate withdrawals catalyze a collapse in investor confidence, aggravating the problem yet further. But there are those who do well in this world. Israeli-led companies flourish in such areas as water-efficient farming, despite — or because of — the growing chaos on the West Bank security. The number of social and environmental enterprises continues to grow, although system volatilities undermine many efforts to scale solutions.

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#### Half-way 2011–17

As conditions worsen for growing numbers of people worldwide, the interest in social entrepreneurship booms — but in the context of profound international dislocations. Surprisingly, the trade war between Europe and Asia on fish develops into a shooting war. The death of a member of a European royal family in one of the exchanges didn't help. Meanwhile, attempts to compensate for falling oceanic fish catches by launching self-navigating fish farm units resulted in widespread piracy, allegedly sponsored by several Asian countries. The US, worried about the escalating crisis, pressures China to twist Japan's arm, but the result is completely counter-intuitive: a rightist-inspired Sino-Japanese resources and security pact.

In Europe, meanwhile, Turkey begins to unravel as its EU membership is further stalled following Iraq-sponsored incursions, supported by Kurdish populations, following Turkish actions to capture a growing share of the water running South. In South America, reductions in glacial melt-water fuelled by climate change result in widespread instability, initially in Lima but then spreading to other urban concentrations that are increasingly at loggerheads with the inhabitants of their rural hinterlands and watersheds.

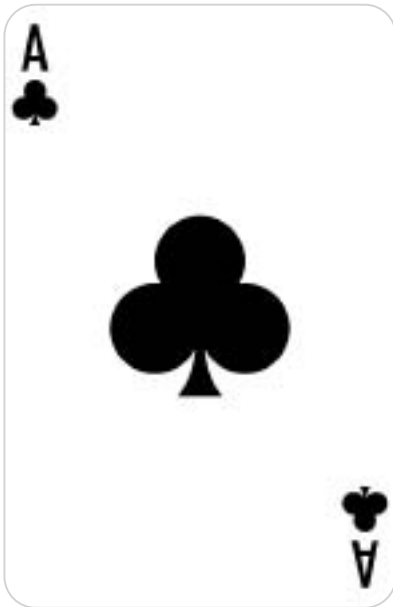
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#### Endgame —2027

Following the expected — but still shocking — failure of the UN MDG initiative, some governments try to take more vigorous action. In Amazonia, the Global Forest Defense Coalition recruits large numbers of young volunteers and fields them in an attempt to protect the remaining areas of primary forest. Unfortunately, a number of skirmishes with the landless lead to a protracted period of conflict, with the Coalition finally forced to pull back to defensive compounds — and finally to withdraw altogether.

On the fisheries front, cod becomes the new caviar, then more or less disappears. Open ocean fisheries largely collapse. Small fishing communities dissolve and their populations join the flows to increasingly polluted, unstable megacities. As desperation grows, Nobel Prize-winning activist Wangari Maathai is brought out of retirement to run the successor body combining UNDP and UNEP, but it is a case of too little too late. The 'blood diamond' phenomenon spreads, with growing numbers of key resources in short supply and increasingly costly; the media begin to talk of *blood fish*, *blood coal*, and even *blood water*. There is evidence that the world will soon have a growing number of ghost cities, either because they are no longer able to access enough natural resources or because they are partly or wholly underwater.





Clubs

**Headlines**

This is a world in which, among other things, the elites learn how to use environmental sustainability as an excuse for denying the impoverished sections of society access to natural resources and environmental quality. One outcome is a slowing of the destruction of ecosystems locally, but this future is characterized by protracted periods of social tension – broken, with increasing frequency, by insurrections. The waves of change build fitfully, chaotically, with closed societies and communities often operating in denial for extended periods. Over time, this erodes many islands of sustainability.

**Suit**

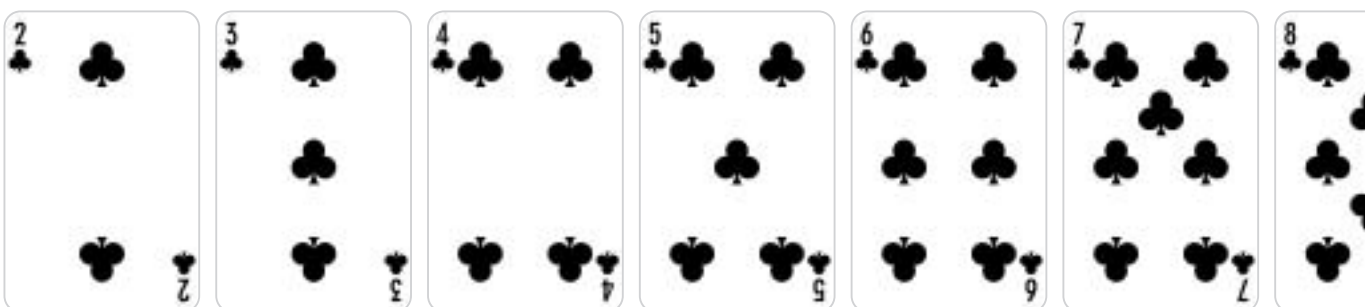
Clubs can symbolize wealth, work, and luck, but also winter and darkness. This is a world of clubs and gangs. The clubs range from the gated communities (where the lucky wealthy cluster) through to complete economic regions using protectionism and military action to insulate themselves from the social consequences of social inequity. The gangs run the black markets providing products and services that may be ecologically or socially undesirable, but which are in high demand.

**Early years 2007–10**

The early signs were surprisingly positive. Innovative solutions to big social and environmental problems began to sell. Toyota's Prius hybrid was one of the first in a cornucopian outpouring of products designed to appeal to green consumers, but they all come at a premium – and many were pretty much cosmetic solutions. Mass production either did not materialize or, if it did, failed to drive down costs fast enough to break through to ordinary consumers, let alone 'base of the pyramid' markets.

The environment may be trumps in this world, but in the early phases there are plenty of hiccups – as when carbon credit and trading schemes come under widespread attack for over-promising, poor performance, and in some cases outright fraud. There is growing concern about carbon offset 'cowboys.' Scandals – like the one that grew around the Indian chemical company SRF, which western investors paid hundreds of millions of dollars to clean up HFC-23 emissions – proliferate. The offset industry manages to police itself to some degree, but social inequities fuel corruption, undermining the ability of such initiatives to make a real impact on climate and other issues.

True, there are poorly coordinated attempts to correct the social problems that are increasingly covered even in the tabloid media, but they are largely palliative. For companies like Carrefour and Wal-Mart, fair trade, and similar offerings remain niche markets. Social entrepreneurs are very active, with major progress made by African arms of Bangladesh's Grameen Phone in countries like Ghana, Mozambique, and Nigeria.





But as evidence mounts that climate change is real and accelerating, there are signs of a growing trend for the wealthier parts of society to decouple themselves — or try to do so. Gated communities spread like wildfire, and property in places that may be less negatively affected, even improved in some eyes, by climate change soars, particularly in Norway and Alaska.

Environmentally driven rationing proves acceptable in some parts of the world, but the inequities of the systems imposed elsewhere are counter-productive and intensely disliked — resulting in protests and, in some cases, hard-fought insurgencies. Surveillance is widespread, with CCTV-related technology spawning a wide range of increasingly powerful security measures — and, inevitably, counter-measures. The security industry does well, with new players jumping into the market from Britain, China, India, and Israel, with countries like Brazil, Russia, and South Africa soon playing catch-up. Russia's mineral wealth enables it to force a consolidation of the industry, giving it a totally unexpected, stealthy grip on the internal dynamics of a number of major developed nations.

Business, paradoxically, is reasonably well able to adapt to widespread social inequity, investing in armoured Mercedes and Lexuses and choosing to feature its ecological credentials and spotlight token social projects rather than risk the ire of shareholders. Private equity continues its aggressive and successful bidding for public companies, as Sarbanes-Oxley makes it harder — among other things — for major companies to attract non-executive directors. The Shanghai Carbon Exchange opens with a flourish in 2009, sending shivers through London's competing exchange, which seemed to have the market sewn up.

ABB, GE, and Siemens are among the companies that successfully expand into megacity infrastructure provision, in such areas as transport, water, healthcare, and energy. Less positively, the Detroit auto industry virtually collapses as a growing swarm of existing Asian and new European and North American manufacturers jump on the green car trend — and prove able to make real money in the process.

**Half-way 2011–17**

The bullish success of emerging markets leads to protectionism in Europe, the US, and Japan. The CSR and corporate transparency movements come under growing pressure and, in some countries, pretty much fade away. To no one's great surprise, the hard-fought US 2012 election is won on a protectionist ticket. Counter-intuitively, many business people back the winding back of key aspects of globalization.

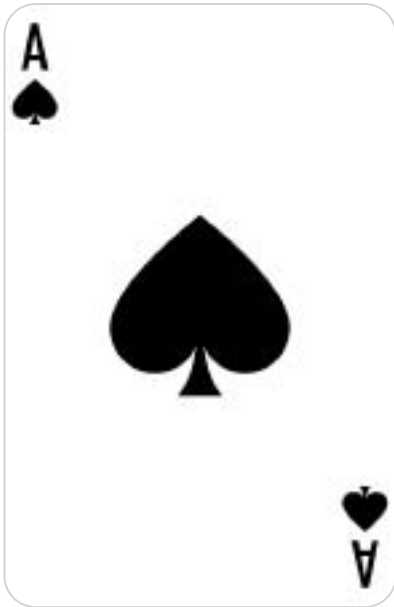
Activists and trade unions join forces to drive a US-wide boycott of Chinese branded goods, on a variety of grounds, among them environmental and human rights issues. The Chinese respond with accusations of state-endorsed protectionism, triggering a process within the WTO that results in the merging of the WTO into a new world ecosystem organization with wide powers to control the environmental aspects of the global economy. Meanwhile, with weakening international cooperation and ineffective controls, there is an exponential rise in the dark side of globalization (Panel 1.1), including widespread trafficking of drugs, arms, counterfeit goods, and people.

**Endgame —2027**

Basic needs of food and water are just about covered in the cities of the new emerging markets through market mechanisms — though hunger and thirst continue to plague the urban poor. Despite the political rhetoric, western travel to India, Poland, and Thailand for heart surgery, cataract operations, and hip and knee replacements rises exponentially, with many buying the new Infosys/Allianz 'health and wealth' insurance package. The steady stream of migration from South to North continues, but the reverse trend is also visible, as a growing flood of skilled, educated workers return to India and China to set up science and technology companies. Middle class expansion takes place in the midst of continued hunger and deprivation.

Despite the importation of huge quantities of genetically modified cereals from China, Brazil, and Argentina, the Indian states of Bihar, Uttar Pradesh, Madhya Pradesh, and Rajasthan still fail to feed their populations. African migrants still cross from North Africa to Europe, though with increasing difficulty. The HIV pandemic which sweeps through India and Russia sees both countries rigorously applying TRIPS flexibilities in the face of this health emergency, despite the increasingly frantic protestations of western drugs firms. Although the EU has weakened in some respects, it still boasts significant clusters of pharmaceutical expertise, even if it is being undermined. Countries like the Czech Republic, Denmark, and Switzerland are leading a cleantech resurgence, though gathering protectionism slows international sales.





Spades

**Headlines**

In this scenario, democratic societies open out higher living standards to growing proportions of their populations. One key consequence is that natural resource prices rise, but another is that ecosystems are progressively undermined, with most governments unwilling to take the political risks of asking voters to make sacrifices in favor of the common good. The challenges are managed to a degree, thanks to more open societies, but not well enough. Over time, deteriorating environmental conditions begin to gnaw at the islands of affluence.

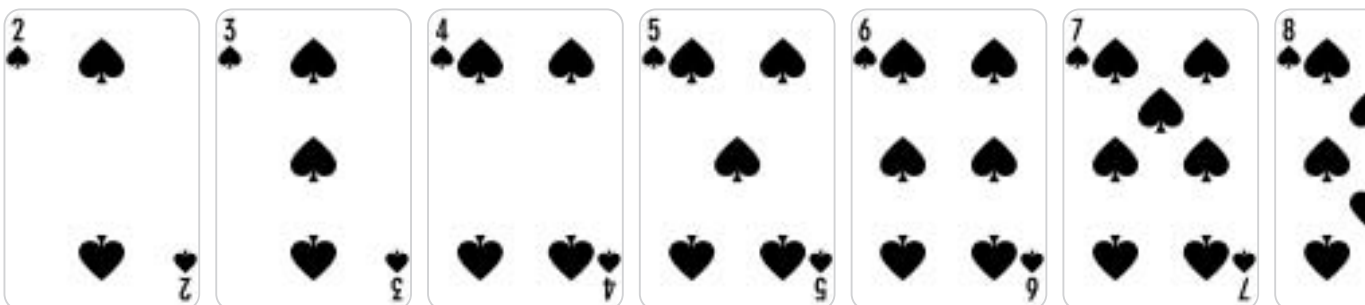
**Suit**

Spades can symbolize both action and obstacles, but also represent the power of darkness. This is a 'bucket and spades' world, in two senses. First, progress in social equity and the spread of affluence is signalled by the fact that there is widespread access to beach and other holidays and leisure activities. But, as the ecological consequences of such lifestyles and consumption patterns build, the spade comes to symbolize the need to build and raise sea defences, and engage in other forms of environmental engineering.

**Early years 2007–10**

The economic boom years of the first decade of the 21st century surprise almost everyone by continuing, admittedly with some major hiccups along the way. The jolting financial crisis in China in 2009 was hardly a complete surprise, and it triggered the predicted calling in of major debts which, in turn, pushed the weak US economy to the edge of default. But the global economy seemed to have developed a life of its own, its momentum carrying the system through to the point of recovery. The power of global trade unions spreads, following the early linking of EU and US 'super-unions.'

Multinational carmakers see China as the defining market for the future of their industry, but concentrate on alternate fuels rather than clean technology. As base of the pyramid thinking becomes reality, the race to build really cheap cars takes off.<sup>89</sup> Cutting costs to the bone, companies like Hyundai, Suzuki, and Tata Motors flood the market with unbelievably inexpensive vehicles, massively boosting private car ownership and slowing attempts to create sustainable mobility options. Most consumers go for the easy option, for example toting cotton bags branded 'This is not a plastic bag' rather than radically cutting their carbon footprints.



**Half-way 2011–17**

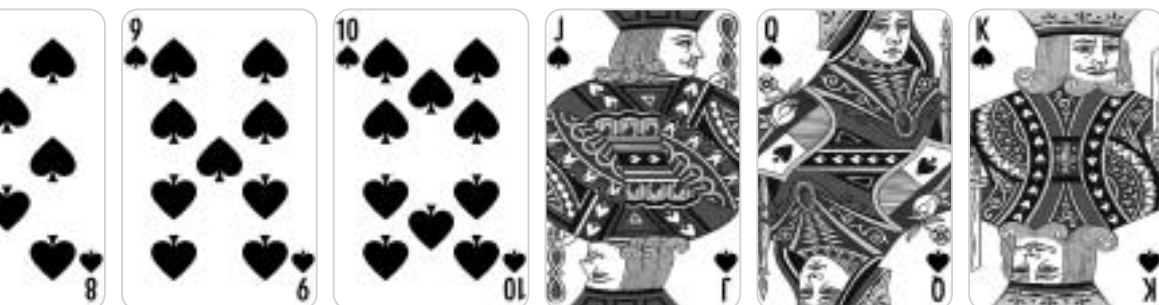
As climate change bites, doctors begin to see malaria and other tropical diseases spreading to previously temperate regions, a process that will soon go into overdrive. But the big story is the unexpectedly effective leadership provided by Japan and India in steering the 2009 financial crisis through to a successful outcome, which strongly results in growing calls for greater southern representation in international bodies, particularly the UN Security Council. Asia rises. But it is not until 2013, with Israel's simultaneous nuclear attacks on key facilities in Iran — and the almost-immediate Iranian strikes against Israel and, for reasons that are still hotly debated, major oil facilities in Saudi Arabia — that the process of restructuring the Bretton Woods institutions goes into overdrive. The process is well under way by the time the protracted depression (2014–19) is drawing to an end. The hands-down winners in all of this: Asia and Russia, which strongly expands its political influence westward.

Early warnings of environmental strain become an annual reality and there is seasonal migration from coastal areas. Sea defences in Europe mainly hold, but Bangladesh is devastated. The much-heralded rebuilding of the New Orleans levees never fully materializes and the city suffers further breaches in 2012 and again in 2016. More seriously still, the same phenomenon hits a number of other major cities, among them Miami and parts of London — when the Thames Barrier partially fails, flooding parts of the underground system.

**Endgame —2027**

Despite a growing number of superstorms, resource crises, and other discontinuities, the world has achieved surprising success in increasing the share of the global population extracted from poverty and all that goes with it. But the process is largely unplanned. Despite many calls for something of the sort, there is no overall global Marshall Plan equivalent, for example — and the process is very much dependent on the economic success of particular countries and regions. Meanwhile, the underlying tempo of natural disasters is now of very intense concern to insurers and reinsurers. They begin to red-line entire regions at risk to try to limit their exposure. Governments fail to fill the gap.

A major global destabilizer is the second Dust Bowl drought that hits the American mid-West from 2022, causing growing havoc and mass migrations to America's coastal cities. The failure of the wheat harvest in four successive years has huge repercussions. In some countries, bread is virtually unobtainable for extended periods. In retrospect, what is notable about all of this is that, with rare exceptions, the pressures and crises failed to ignite sustained political action. Leaders emerge, but most of the time they fail to engage citizens and voters, whose main concern is to climb the socio-economic ladder rather than to address intra- and inter-generational equity issues.







Hearts

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### Headlines

This is a world in which demography, politics, economics, and sustainability gel. It is the future that the Brundtland Commission's definition of sustainable development pointed us towards. The early years of this scenario, however, are at least as rough as in two scenarios where society loses (Diamonds and Clubs), but this time the challenges come in forms that enable and drive positive responses. Over time, a virtuous spiral of improvement sets in, in most places a second Renaissance, but across a larger canvas.

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### Suit

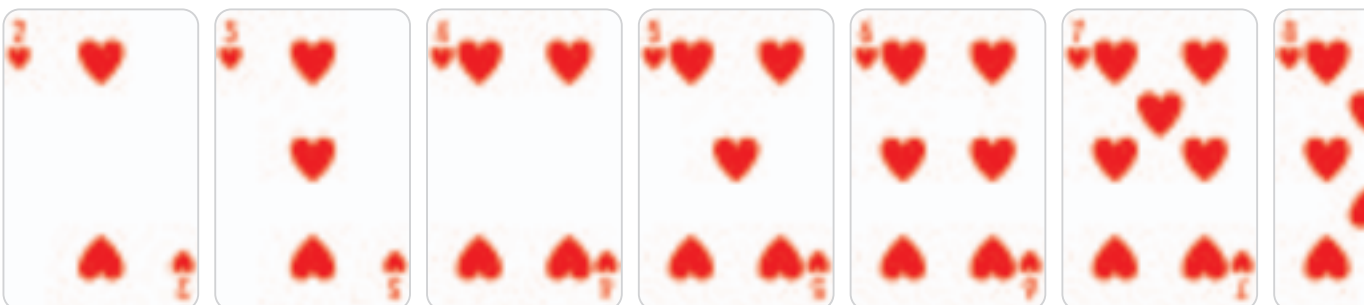
Hearts can symbolize life, health, warmth, love, and compassion. Here they signal a world in which — after some profoundly unsettling shocks to the system — advocates of sustainability finally manage to win the hearts and minds of ordinary citizens, business leaders, and, as a result, politicians and governments.

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### Early years 2007–10

This may be a better, more sustainable world than those portrayed in Diamonds, Clubs, and Spades, but it is no utopia. The world's population may increasingly live in cities, but in 2007 consultants Booz Allen Hamilton had calculated that the world's cities need to find \$40 trillion to upgrade their inadequate and out-of-date infrastructure. The problem gets worse as super-slums are built without adequate services. National and international government nitpicking continues over the accuracy of climate change predictions, but campus activism begins an accelerating curve, initially in the US on issues linked to global warming, but then internationally as the Earth Day movement and others shift into a very different gear.

On the business front, the membership of the US Climate Action Partnership swells as global firms add their voices to the demand that governments set caps on carbon emissions to ensure they can compete on a more level playing field. The environmental problems associated with the Beijing Olympics spur newly re-elected London Mayor Ken Livingstone to suggest a global convention of mayors, urging them to green the world's cities and megacities. Funded by a coalition of companies and orchestrated by outgoing California Governor Schwarzenegger, the event is held in São Paulo and Shanghai simultaneously; it is a runaway success. Southern members of Al Gore's 'Inconvenient Truth' global network turn out in force in subsequent mayoral and city elections, successfully challenging municipal authorities to override their national and regional governments' arguments on growth.



Interestingly, the seats allocated to the financial community at the summit are sold out, four to one, signaling intensifying investor interest. Then, shockingly even if long expected, in 2010 an unparalleled pandemic breaks out in Moscow, following a giant trade fair.

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### Half-way 2011–17

The Moscow pandemic threat is initially contained, though at considerable cost in civil liberties and human rights in a growing number of countries. Then there is another outbreak in 2012, this time first igniting among migrant workers in Dubai. Concerned about the risk to the emirate's international branding, the government cover-up delays diagnosis and treatment, and the city's hub status ensures that the disease is shotgunned across the globe. Along the way, it mutates — and the virulence of what follows takes even some pessimists by surprise. Workers leave for work healthy and are dead by evening. Significantly, as in the post-World War I flu and SARS epidemics, the young are disproportionately affected, as their healthy immune systems turn into their deadliest enemy.

Global travel grinds to a halt as fierce immigration restrictions are imposed. Airports and public transit systems empty as if by magic. Schools, universities, and crucially many hospitals are closed. Vital utility services are disrupted. A variant of the Iron Curtain is re-established in Europe, to keep out migrants flooding West in search of medical care. The just-in-time economy, in which stocks are held by suppliers not manufacturers, begins to unravel as transportation links unravel.

Preparations to treat the disease and prevent its further spread by national governments and the World Health Organization enjoy patchy application but within months are overwhelmed.

In retrospect, however, and like a vaccination kick-starting the human immune system, the medium-term effects are astonishing. Years previously, Paul Hawken had spoken of the emergence of the global citizenry movement as an emergent global immune system — and now the phenomenon goes into overdrive. This is not the end of globalization, though relocalization has been given a massive spur by the pandemic and its aftermath.

Issues like policing and water rationing are taken in hand by local civic committees — and the net effect is a massive decentralization of power. Global production facilities capable of producing vaccines or flu treatments are requisitioned, with scant regard for intellectual property or the need to continue to treat other diseases. Described as a temporary measure, this set of actions also has profound long-term repercussions. The countries that deal best with the crisis are those with internet savvy populations who successfully share and disseminate good practice among the enforced 'stay-at-homes.'

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### Endgame —2027

The pandemic exposes the weaknesses of many economic models. China's command-and-control approach fails to protect even relatively cosseted urban coastal communities, while Russia's kleptocrats find — once again — that disease is 'no respecter of kings.'

By 2027, the world has changed beyond recognition. Though the disease continues to break out in hot spots, it is broadly spent and preventative medicine is soon widely available.

In the post-Apocalyptic dawn, the world wakes up, like the small boy left behind by the Pied Piper of Hamelin, to a world deprived of a significant proportion of its young people. Initially, many people descend into despair, but new forms of democracy take root in China and Russia — where the Clubs' strategies pursued by the elites has left them politically isolated when the recovery began.

The key role of bottom-up solutions in the recovery leads to a 'clean slate' in thinking on the economy. The lesson that the pandemic had thrived and been exacerbated by gross inequity was lost on no one and a post-pandemic consensus on the need for a more inclusive world was forged. Re-globalization is now well under way, but with massive redundancy built into the system to ensure its resilience, as was the case with the internet — now long since replaced with the Semantic Web. And here the really big surprise was the period when the rapidly evolving Web began to awake and started that astonishing outpouring of wisdom and sound advice that science fiction writers had long imagined. But that's a story for a different place and time.





# New Referees





More effective referees — and more persuasive rewards and penalties — will be needed if the sustainability agenda is to gain real traction globally. That is where the idea of civil society as an emerging global immune system is so powerful.



# 5 Learning New Rules

Have you ever watched two great tributaries converging to form a single river? If the incoming waters are of different colours, you see extraordinary, chaotic patterns forming as currents collide and mix. In some cases, the process continues for many miles downstream. The same is true of great social movements as they push into the mainstream of politics and business.

But as the convergence gets going, expect turbulence and a blurring of boundaries, making underlying trends harder to detect and read. Recent years have seen precisely these conditions as new definitions of corporate responsibility – plus the wider sustainable development agenda – have pushed into the political mainstream. In what follows we summarize some of the business assumptions that were prevalent before the mixing of agendas really got under way – and spotlight some of the trends likely to replace them.

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## Old rules

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Globalization now runs on rails – and today's business principles and models are future-proof

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The North is – and will remain – the axis of global trade

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Good corporate citizens are successful business leaders – and vice-versa

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There are sufficient, affordable natural resources for our business to thrive – and we can succeed on our own

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Sustainability is a gloss to be applied to innovation, if and when external pressures make this necessary

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The aim of corporate responsibility is to keep the company's nose clean, contain risk, and build relationships with key influencers in case things go wrong

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Politics is for politicians – and business people should simply lobby for their own interests.

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## New rules

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1 Think around corners

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2 Find true South

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3 No guarantees

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4 Join forces

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5 Leapfrog

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6 Scale solutions

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7 Lobby – for sustainability



## Old rule

Globalization now runs on rails – and today's business principles and models are future-proof

# New rule 1

## Think around corners

### Challenges

Our global system has proved surprisingly resilient in the face of a range of shocks, from financial meltdowns to 9/11, but is more vulnerable to disruption than we might imagine.

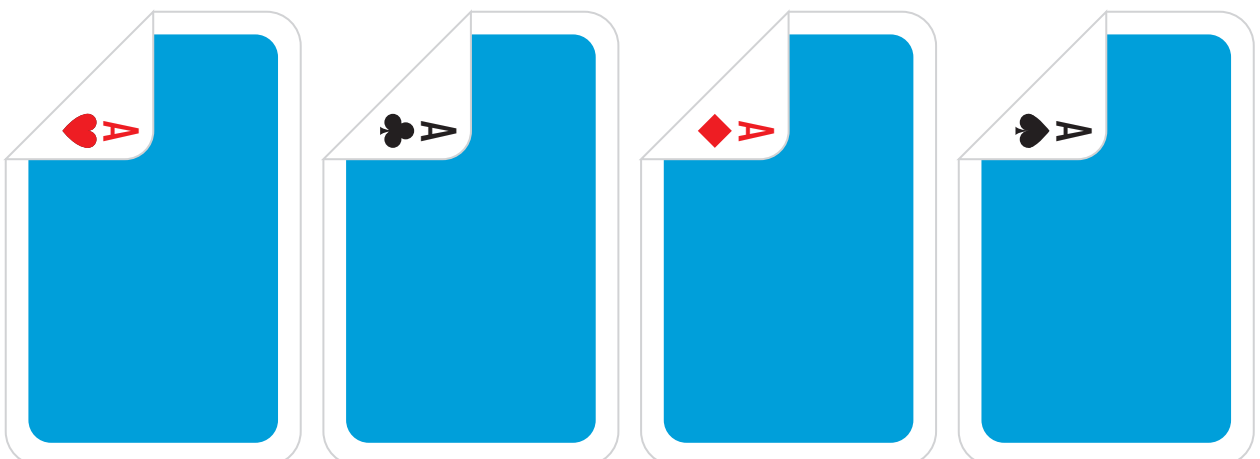
Terrorism, pandemics, and climate change are just some of the potential disruptors. Talk to those who are immersed in such issues. Push your colleagues into areas of real discomfort.

A key challenge is to build resilient and flexible technologies and value chains in the face of future shocks. Business continuity planning is central.

### Early champions

One way to expect the unexpected is to build scenarios of the future – as we have done for Section 5. Pioneers in scenario planning have included **Shell**, the **Global Business Network**, **WBCSD**, and the **World Economic Forum**.

Take a look, too, at what those involved in re-insurance are doing to get a grip on the risks associated with natural disasters and climate change, among them **Swiss Re**. Build links with leading NGOs in areas of the agenda that are evolving fast, for example take a look at the work of the **Business & Human Rights Resource Centre**.



### Plan for the unexpected

Or, to put it another way, learn to think around corners. The current consensus is that globalization will continue – and perhaps even accelerate in some areas. If well managed, the process is likely to be net positive in terms of the sustainability agenda. But we are building such a dynamic, complex international system that unexpected, unintentional effects are pretty much guaranteed. And it is far from clear that business is sufficiently conscious of the sort of risks that could derail globalization – or shunt it into a siding.

For one thing, the time-scales used by business are shrinking continuously. Some of the largest participants in US capital markets are now operating market trading systems that cut transaction times from 10 milliseconds to 1 millisecond.

Under pressure from hedge funds and others, they are trying to squeeze out the best returns in much shorter periods of time – with powerful knock-on effects in terms of the capacity of CEOs and other business leaders to think longer term. In such conditions, many top executives tend to assume that all other things will be equal, in the sense that they won't change much during their watch. And as the average CEO shelf-life shrinks, so the problem worsens. Yet, viewed from the perspective of the lifespan of a typical multinational company, the chances of major discontinuities impacting the business are growing.

When the sustainable development agenda was in its infancy, the biggest surprises tended to come in the form of NGOs and other actors launching attacks on particular products, processes, technologies, industries, or brands. Increasingly, however, some of the most significant challenges will flow from big shifts in the perceived threats from climate change, pandemics, and other issues.

Globalization, too, is creating instabilities that will disrupt and/or mutate the process of globalization itself. These include: financial discontinuities in increasingly inter-linked financial markets; the speedy transmission of novel viruses and pathogens; the development of political constituencies opposed to globalization (because of economic, social, cultural, or environmental impacts); significant terrorist events and the associated security issues; and severe weather-related events. One outcome could be significant and lengthy disruptions to business processes built around global trade, extended supply chains, and just-in-time manufacturing – leading to competitive advantages for more customization and 'build-to-order' models at local or regional level.

'A human pandemic is pretty much universally expected by epidemiologists some time in the next decade or so. Whether or not this is the H5N1 virus, it is going to happen eventually, and when it does it is expected to initiate a major domino effect throughout the global just-in-time supply chain.'

**Denise Caruso**

Hybrid Vigour Institute, USA

responding to SustainAbility Network Survey

## Old rule

The North is – and will remain –  
the axis of global trade

## New rule 2

### Find true South

#### Challenges

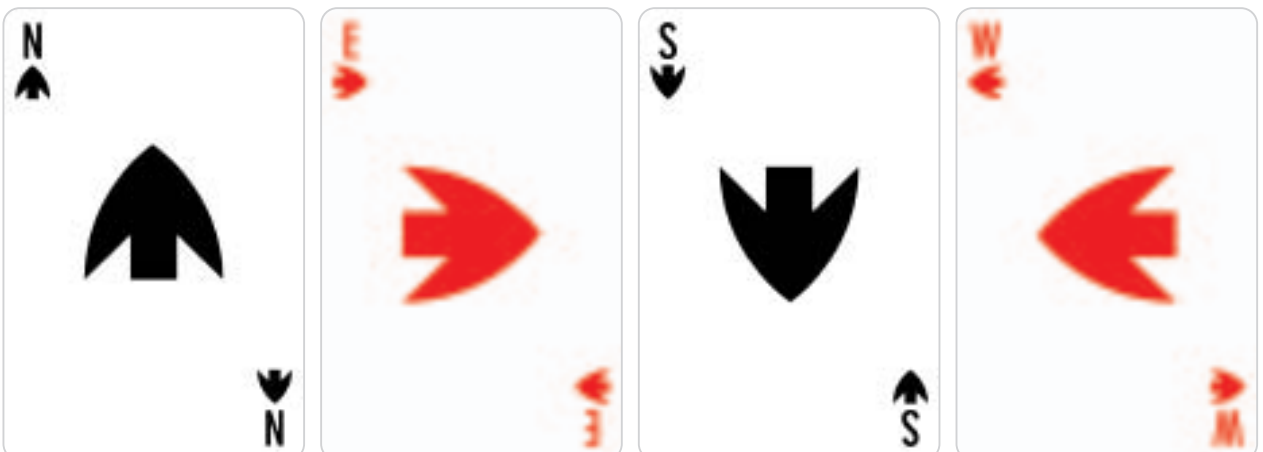
As the skills and competencies of the emerging economies grow, don't just think of them as low-cost production bases or markets. Think about their potential to innovate and add value. Consider them as partners and tap into their latent energy.

True South may be multi-directional, at least to start with. Seek to harness the diversity of thought and cultures that these countries represent. Don't assume that the same business model will work across the world or that there is common understanding of norms and principles. Tap into the 'Base of the Pyramid' market estimated at \$5 trillion.<sup>90</sup>

#### Early champions

The emerging economies are a source both of new challenges and of new forms of best practice. In Brazil, there is growing interest in companies like **Aracruz Celulose**, **Banco Real**, and **Natura**; in China, in **Broad Air Conditioning** and **CNOOC**; and in India, in **Infosys** and **Tata**.

Additionally, southern-based subsidiaries of companies like **Unilever** are looking into their impacts: Unilever's Indonesian subsidiary recently collaborated with **Oxfam** on a study of the company's economic footprint in the country.





## See Beyond the BRICS

For those brought up on the notion of true North — that is, brought up in a world powerfully shaped by European and then American culture and power — true South may be a bit disorientating. But one theme that emerged from our research was that the peak of American power and influence may well have been passed during the two-term presidency of George W. Bush.<sup>91</sup> Whatever the longer-term direction, recent years certainly have seen a sharp downward trend in the global reputation of the United States, with the Iraq War a major cause. Many factors have been in play, among them the Bush Administration's disputed beginnings, its poorly managed initial responses to the 9/11 attacks, its clear disdain for multilateralism, and its profoundly self-interested positions on such issues as human rights and climate change.

That said, America will unquestionably continue to play a crucial role in shaping the 21st century, but the era when it could count on writing the rules of the global game to its direct advantage is almost certainly behind us.

Increasingly, the rules will be written — and often rewritten — in favor of new players, notably Brazil, Russia, India, China and South Africa. But successful companies know they must learn to see beyond the BRICS, the emerging giants of the developing world. Meanwhile, a key driver for the growing developed world interest in emerging economy markets is the fact that many northern markets are saturated — or close to saturation. Some 40% of Unilever's sales now take place in emerging economies, for example, and over 100 million of Vodafone's 200 million customers are based in these countries. Well managed, entry into such markets can be profitable and can also have important beneficial impacts on local economies.

So-called 'base of the pyramid' strategies being developed by companies such as Dow Chemical, Procter & Gamble, S.C. Johnson, Unilever, and Vodafone seek to exploit these opportunities, though — in a small but growing number of cases — in ways that generate sustainable social, environmental, and economic outcomes for local markets and communities. More generally, globalization is driving rapid growth in the skills base and broader competencies of key emerging economies, implying that at least some of these economies will become the world's largest and most innovative at some point in the 21st century.

The Chinese government, for example, aims to increase spend on R&D from 1.2% of GDP to 2.5% of GDP by 2020 — and to cut the country's dependence on foreign technology from 50% to 30% during the same period.<sup>92</sup>

Until relatively recently there was a belief in emerging economies that innovation was something developed nations did. No longer. At research labs across India, Indians are creating technologies specifically designed for the nation's multilingual masses and its poor. In the process, the country is emerging as a research hub for technologies geared to the developing world.<sup>93</sup> And this even as it continues to focus on developing its service industry and attracting jobs in sectors like IT-enabled services, call centres, and back office services, in turn competing directly with the workers in the developed world for white collar jobs.

As a result, the scale of development in emerging economies is likely to be so great in the coming decades that the leverage for sustainability thinking and action there will often be significantly greater than in more developed parts of the world.

**'Businesses and individuals are losing faith in multilateral and global institutions. Globalisation is often perceived as "Americanisation" and there is a growing resistance and backlash to that.'**

**Imelda Dunlop**

IBLF, Dubai

responding to SustainAbility Network Survey

Old rule  
 Good corporate citizens are  
 successful business leaders —  
 and vice-versa

## New rule 3

### No guarantees

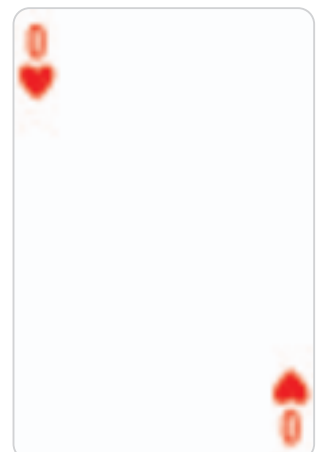
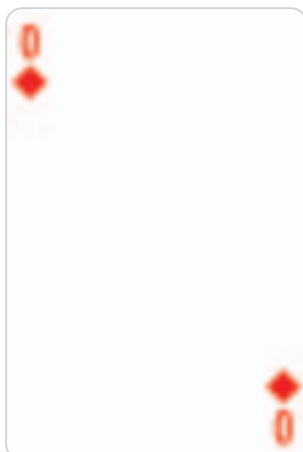
#### Challenges

In turbulent times, with radical change a priority, many innovators and early-stage entrepreneurs will place high-stakes gambles, with all that this entails. They will be disruptive — financially, socially, politically. Many will come to responsibility and sustainability, if they come to them at all, when they have made their fortunes — as is the case with foundations such as Skoll, Gates, Ford, and Rockefeller.

#### Early champions

There are a fair number of companies that have invested a good deal of effort in corporate responsibility and similar agendas, but have come off the rails financially — or lost out to global competition.

Still, companies that have not traditionally been seen as either 'good' or 'nice' are building these issues into their core offerings — among them **GE** and **Wal-Mart**. As a result, there will be a growing need in both North and South for NGOs, journalists, and investment analysts willing and able to investigate and evaluate company performance in non-traditional markets and geographies.



### Don't expect 'nice' companies to come first

Much of the marketing — and propaganda — of the sustainability movement has argued that responsible and sustainability-focused companies do well by doing good. Up to a point, but there is nothing automatic about this relationship. Furthermore, in times of market turbulence and creative destruction, some fairly unlikely people break through with new business models and technologies. Think of people like Carnegie, Ford, Rockefeller, or, more recently, Brin & Page, Gates, Jobs, and Omidyar & Skoll. But there are also many entrepreneurial people who do well in such times of change in the grey or black markets, through involvement in illegal traffic in arms, drugs, or prostitutes, for example.

Any mainstream global listing of leading companies inevitably contains its share of those that have a high profile on responsibility and sustainability issues. For some their very prominence has ensured that they have been caught up in past controversies — and, in the process, have learned how to do these things differently.

The pressure grows as companies have to manage a growing variety of cultures in the workplace and find they can no longer rely on business as usual. The parallel globalization of the media and of NGOs has ensured that companies are much more exposed to brand and reputational damage than they were. New media are aggravating the problem, from chat-rooms, blogs, and Company-X-sucks-style websites through to 24/7 TV stations.

One place to look for clues to where the future may take us is companies that have been under intense pressure. BP has certainly had its share of crises recently, but its outgoing CEO is still one of the more interesting thinkers on the sustainability agenda for business. 'Many people seem to think that companies exist only to make money,' Lord John Browne argues. 'Well, companies do need to make money to reward those who trust us with their capital and also to enable us to invest for the future. No business can exist for long unless it makes money. But making money really isn't the purpose of business. Our purpose is to supply the goods and services which people want to buy at a cost they can afford. If a business cannot meet the needs of its customers, it will cease to trade.'<sup>94</sup>

Good citizenship, clearly, is no guarantee of survival, let alone of sound financial health. It is eminently possible to get the citizenship right while getting the business fundamentals wrong, just as so many companies do the opposite. And the new operating environment is far from 'fair' — for every major multinational challenged by NGOs and the media, scores or hundreds of others get away with poor practice, among them state-owned industries and companies that are still able to stay off the radar-screens of the organizations and networks that currently police corporate behavior. But as they develop international businesses and brands it seems inevitable that emerging economy companies will also learn the value of sound corporate citizenship strategies as an investment in licenses to operate and innovate.

'There will be a premium, in terms of short-term financial advantage, in being on the margin of the transparent global standards. Thus a company like Gazprom will get away with murder in terms of sloppy and incomplete reporting, but no one will crack down on it.'

**Peter Goldmark**

Environmental Defense, USA,

responding to SustainAbility Network Survey



## Old rule

There are sufficient, affordable natural resources for our business to thrive — and we can succeed on our own

# New rule 4

## Join forces

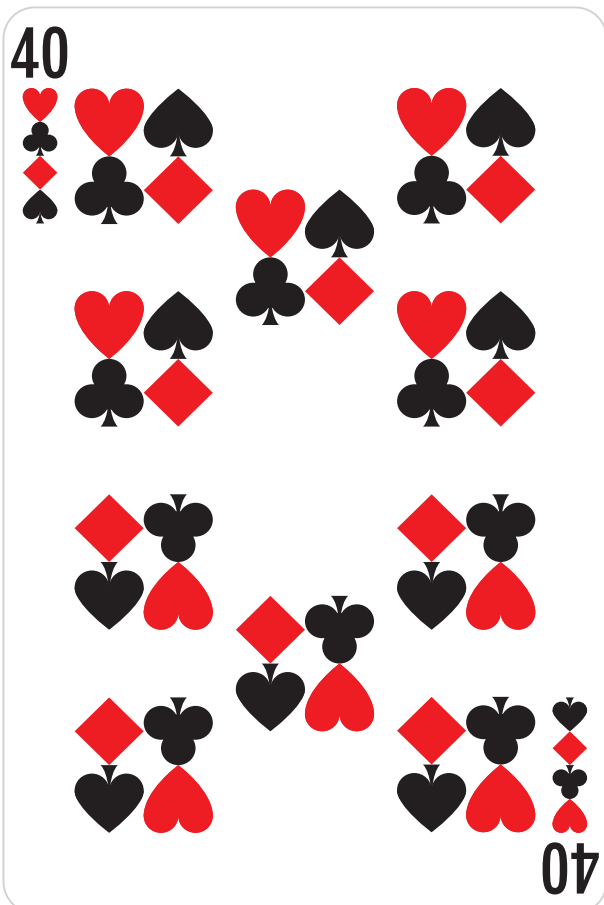
### Challenges

Resource constraints are moving from being isolated issues limited to specific industries or geographies and emerging as fundamental features of the market as a whole (system conditions). So, for example, citizens, communities, and companies alike may be asked to take full account of their carbon footprints as various forms of carbon rationing gain currency.

### Early champions

Many companies have set in place programs to address the environmental impacts of their business, but few have made the necessary investments to ensure that their business models and operations are environmentally sustainable.

**Marks & Spencer**, for example, has committed £200 million over five years to a 100-point 'Plan A' that commits them to being carbon neutral, reducing waste to landfill, and sourcing sustainable raw material like Marine Stewardship Council certified fish and Forest Stewardship Council certified timber along with promoting healthier lifestyles.



### Co-evolve Earth's 'immune system'

The human body has evolved an immune system which, as Paul Hawken puts it in his new book *Blessed Unrest*,<sup>95</sup> 'is the most diverse system in the body, consisting of an array of proteins, immunoglobulins, monocytes, macrophages, and more, a microbestiary of cells working in synch with one another.' In the same way, he argues, the world has been developing its own version of an immune system — composed of scientists, civil society organizations, the media, governments, and switched-on businesses and financial institutions. He notes that the internet — already consisting of a quintillion transistors, a trillion links, and a million emails per second — strongly favors the small over the big, the civil society Davids over the corporate Goliaths.

Despite the power of this developing global immune system, however, the pace and scale of the deployment of unsustainable economic and business models is at times overwhelming. For many environmental issues, radical action is required immediately — yet the political will is absent. Sir Nicholas Stern in his comprehensive review of climate change argues that climate change represents the greatest market failure of all time and that the world has at most a decade to reign in and then begin to reverse increases in global greenhouse gas emissions.

Like it or not, globalization is accelerating the rate of resource consumption, leading to growing ecosystem pressure and, ultimately, resource constraints. Global society is consuming 25% more than the reproductive capacity of the planet.<sup>96</sup>

As a result, 31% of the sustainability experts surveyed in a 2006 study said that major damage from climate change has already occurred, with a further 43% believing that current progress is inadequate to prevent further irreversible damage.<sup>97</sup>

The key to sustaining individual businesses and their processes of value creation will be to sustain the markets of which they are part — and the key to sustaining markets is to build and sustain the social, environmental, and governance conditions on which their long-term health depends. Helping to build, to co-evolve, this immune system in key markets where a given company operates will become a vital part not only of reputational risk management but also of market intelligence and, increasingly, market creation.

'By its nature, the emerging US system produces amongst its people not a globalized focus but a very narrow, almost-feudal perspective. The more chaotic, threatening the greater world becomes, the more focused our people will become on their immediate lives. They will look to their sects — corporate and religious — for protection. And if history is a guide, they will find it. The "globalized", secure Roman empire of the second century emerged from the chaotic third as the atomized proto-feudal society of the fourth. Its social organization had changed utterly — walled cities, deserted countrysides became the norm; it had gained a new official, crusading religion; and its culture, education and social mobility had deteriorated to levels that would not be reached until the second half of the nineteenth century. None of this is inevitable. But history will play a variation on this theme if we focus on the elite concept of globalization rather than on the individual and local needs of our people.'

**Peter Kinder**

KLD, USA

responding to SustainAbility Network Survey

## Old rule

Sustainability is a gloss to be applied to innovation, if and when external pressures make this necessary

# New rule 5

## Leapfrog

### Challenges

The size of the social, environmental, and governance divides discussed in Chapter 3 suggests a growing need to boost the performance of our economic, social, and environmental systems to an almost unparalleled degree.

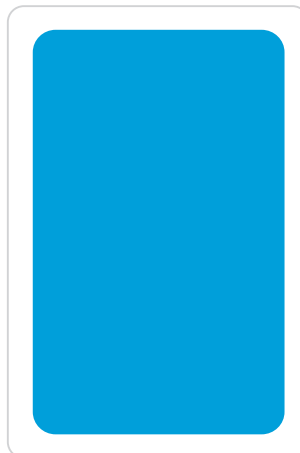
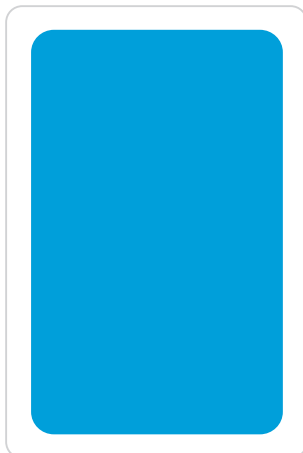
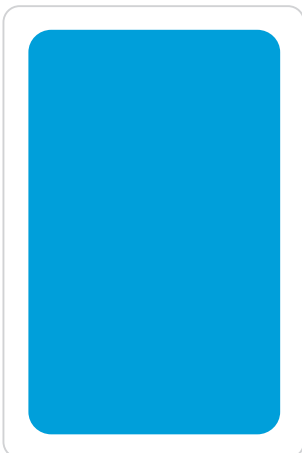
The role of innovation will become more important at every level of the value creation system. Think through how a new entrant to your markets would view the risks and opportunities — and engage both existing and potential new customers through the internet and open source networks.

### Early champions

**GE's** 'ecomagination' initiative spotlights the scale of the new opportunities. Revenues from the sale of its energy efficient and environmentally advanced products and services hit \$10.1 billion in 2005, up from \$6.2 billion in 2004 — with orders nearly doubling to \$17 billion.<sup>98</sup>

**Honda's** R&D portfolio is similarly impressive. The company is pursuing hydrogen fuel cell commercialization.

**Lego** among many other companies has set up virtual design facilities on the company's website to engage customers as co-creators in the company's products.





### Think opportunity — and innovation

Pretty much at the same time as Jack Welch was telling *BusinessWeek* readers that they should engage the climate agenda in the same way that successful business leaders had engaged the globalization agenda several decades earlier, California Governor Arnold Schwarzenegger graced the cover of the 'Fast 50' edition of *Fast Company*. Schwarzenegger — dubbed 'The Germinator' — topped the 'Fast 50' list, on the basis that he is leading the way in shaping markets to incentivize renewable energy and other forms of clean technology. This argued that we have to move to 'Business 3.0' — a new, socially and environmentally sustainable set of economic and business models that acknowledge that 'We can't continue indefinitely to cannibalize our life-support systems for spare parts.'

*Fortune*, meanwhile, headlined its survey of the opportunities: 'Go Green. Get Rich.' And the really interesting thing about the survey was that it wasn't just about climate change. It spotlighted seven great problems that will create massive new market opportunities, including poverty and malnutrition, epidemics, and overfishing. *Fortune* also quoted Ray Lane, a partner at Kleiner Perkins Caufield & Byers, to the effect that all of this could be 'bigger than the Internet, by an order of magnitude.' Shell estimates that the climate-related business market will grow by \$70 billion a year for the next few decades if greenhouse gas emissions are to be stabilized.<sup>99</sup> Philips Electronics already claim to have generated revenues of €4 billion in 2006 from 'green products'<sup>100</sup> and GE claims to have sales of 'environmentally preferable' technologies of \$10.1 billion.<sup>101</sup>

Viewed from this angle all sorts of social and environmental issues can be seen as sizeable market opportunities. Even frameworks like the Millennium Development Goals — defined by the UN as key objectives for society — could also be interpreted as early signals of future market opportunities for the private sector.

Going back to the Stern report on the economics of climate change, it is worth underscoring the fact that the Stern team concluded that the benefits of timely, effective action could be in the order of \$2.5 trillion a year, with huge opportunities and markets for low-carbon technologies likely to be worth at least \$500 billion, perhaps much more, by 2050 if the world acts on the scale required. At times, it's seen as a bad thing to be opportunistic, but as business cranks up its capabilities to identify, evaluate, and manage the new risks, it should also be actively trying to spy out the landscape of opportunity.

'I loved the film *Apollo 13* because it captured the triumph of mankind, against all odds, in the face of a devastating series of problems. The ingenuity and team spirit of all those involved in saving the spaceship was breathtaking. The rescue took place in a goldfish bowl, so to speak, as the rest of the world watched on in awe. Today we are faced with perhaps our greatest challenge in history — how to sustain a growing population and lift millions out of poverty, while sustaining the capacity of our natural systems to provide us with needed goods and services.'

**Janet Ranganathan**

World Resources Institute, USA

responding to SustainAbility Network Survey

## Old rule

The aim of corporate responsibility is to keep the company's nose clean, contain risk, and build relationships with key influencers in case things go wrong

## New rule 6

# Scale solutions

### Challenges

The systemic issues raised by the sustainable development agenda will become central for many businesses with big environmental or social footprints – and for many of those in their supply chains.

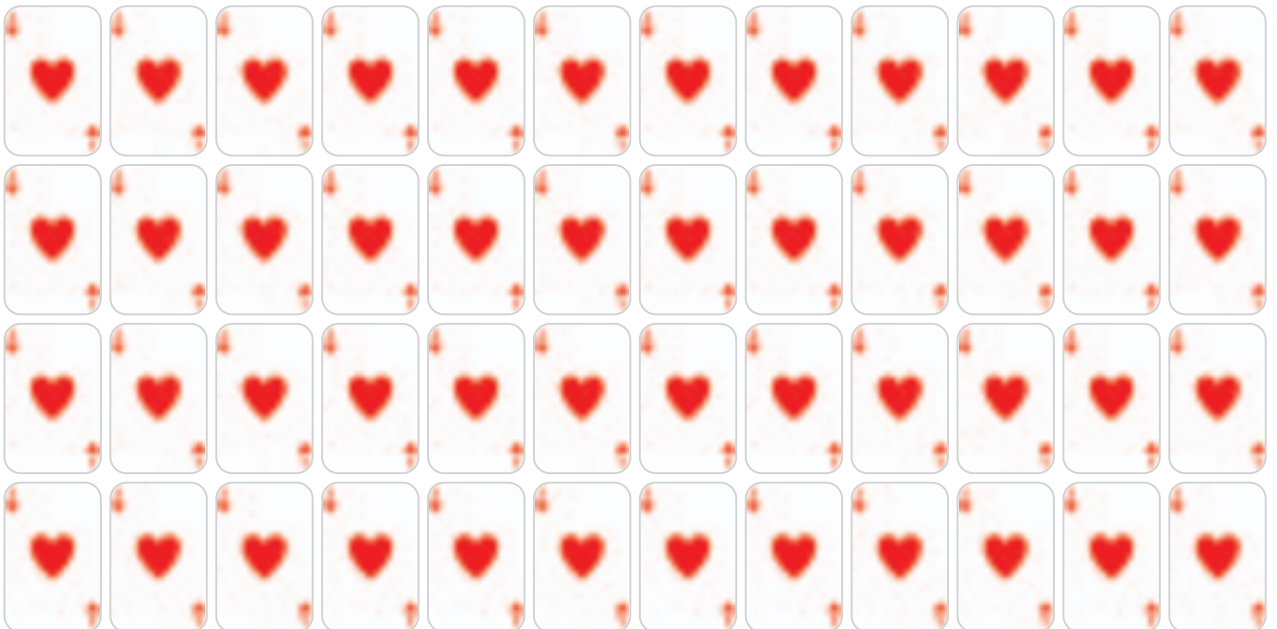
Happily, as the old proverb put it, 'Every cloud has a silver lining.' Indeed, one reason why social and environmental entrepreneurs are so interesting is that they share the ability to see today's great divides and challenges as a rich opportunity landscape.

The longer-term key to their success, however, will lie in their ability to replicate and scale their operations. This is an area still in need of much further work.<sup>102</sup>

### Early champions

On the social enterprise front, growing numbers of entrepreneurs are networked by organizations like the **Acumen Fund**,<sup>103</sup> **Ashoka**,<sup>104</sup> **Endeavor Global**,<sup>105</sup> the **Schwab Foundation**,<sup>106</sup> and the **Skoll Foundation**.<sup>107</sup>

Meanwhile, the cleantech boom is monitored by the **Cleantech Venture Network** – which reports that investment in such areas as biofuels, wind energy, and solar photovoltaics hit \$3.6 billion in 2006 in North America and Europe.<sup>108</sup>



## S-t-r-e-t-c-h

The growing interest in the fields of social and environmental entrepreneurship is one more indication of the growing need for innovation and entrepreneurial solutions. Innovation is needed at every stage of the value creation cycle. So who do we admire — even envy — in this space? A bunch of people and organizations, if we are honest, some of whom are mentioned in previous panels. But, for a real stretch, try the X Prize Foundation, which encourages innovators and entrepreneurs to think outside the box.<sup>109</sup> They create and manage prizes that encourage innovators to solve some of the greatest challenges facing the world today, including a growing number of those spotlighted in Chapter 3.

Now the Foundation — motto: 'Revolution through Competition' — is moving beyond aerospace (its original area of focus) to tackle some of the challenges that social and environmental entrepreneurs are concerned about.

Evolving at the moment is the Automotive X Prize, which will encourage car designers worldwide to design, build, and sell super-efficient cars that, crucially, people want to buy. And any guesses as to where all this is going to take the Foundation? 'By next year,' replied the Foundation's President, Tom Vander Ark, 'we will have launched prizes in four areas (space, genomics/medicine, transportation/energy, and education/poverty reduction), will have full prize teams, and well-developed shared services. By 2009, we will have developed several revenue engines that will make it a sustainable world class prize platform.'

Similarly, the growing interest in social and environmental entrepreneurs as s-t-r-e-t-c-h partners also points to growing potential market opportunities for mainstream business. Focused on delivering social as well as economic value, social entrepreneurs operate in market spaces that are initially unattractive to mainstream business. But like pioneer species of plants colonizing new land, they also help to create the conditions for more mainstream engagement.

Meanwhile, the process of globalization is leading to a so-called 'triple convergence'<sup>110</sup> of trends that are in turn super-charging the innovation process. A flattening global marketplace, a move from hierarchical to networked structures in companies and the inclusion of 3 billion additional people in the world economy are all helping to drive innovation in a number of different directions, in the process energizing key sustainability sectors. Successful innovations can potentially spread more rapidly. But a core part of the future challenge will be to encourage public policy-makers to create the system conditions within which sustainable outcomes are very much more likely.

'I believe that more is being done, but it flies under the radar. For several years now our Institute has been researching the extent of NGOs, village-based organizations, foundations, institutes, citizen-based organizations, etc, that directly address the issue of social justice and the environment. Our estimate is that it comprises over 1 million organizations populated by over 100 million people and that collectively it constitutes the single biggest movement on earth.'

### Paul Hawken

author of *Blessed Unrest: How the Largest Movement in the World Came into Being and Why No One Saw It Coming*

responding to SustainAbility Network Survey



## Old rule

Politics is for politicians – and business people should simply lobby for their own interests.

# New rule 7

## Lobby – for sustainability

### Challenges

Companies should be open, transparent and accountable in relation to their lobbying – and other efforts to influence public opinion and policy. Increasingly, too, they should seriously align their lobbying and other political activities with the principles of sustainable development that so many of them publicly embrace, including through their representation on trade bodies. Recent initiatives in this vein include the Corporate Leaders' Group on Climate Change in the UK and the US Climate Action Partnership (see right).

### Early champions

Ten US companies<sup>111</sup> (**Alcoa, BP America, Caterpillar, Duke Energy, DuPont, Florida Power & Light, General Electric, Lehman Brothers, Pacific Gas & Electric, and PNM Resources**) have partnered with Environmental Defense, the Pew Center on Global Climate Change, Natural Resources Defense Council, and the World Resources Institute to form an unprecedented alliance – the United States Climate Action Partnership (US-CAP) – to call on the US government to set up a cap-and-trade system to combat climate change based on hard limits.

'For my money, the dimension of globalization that has not received sufficient attention and that will occupy our minds is that old-fashioned 'P-word'. Yes, I think politics will be a bigger part of the debate as states try to find and assert their roles in a new world, and more importantly, the global political balance gets contested.'

### André Fourie

Chief Executive, National Business Initiative,  
South Africa

responding to SustainAbility Network Survey

Do the politics

The agenda is becoming political. Mercifully, as Al Gore has put it, political will is a renewable resource — though it sorely needs renewing. As sustainability pushes into the mainstream, so the issues become politicized and, once the low-hanging fruit of change are picked, higher ambitions can only be met through political, government, and public policy action. Indeed, one of the critical barriers to greater engagement of the business community in the sustainability agenda has been lack of enabling environments for companies. As the Ford Motor Company noted in their corporate responsibility report, a major tension exists between their acknowledgement that 'climate change is a major and growing environmental, social, and economic challenge, [and] the slowness of markets and policy makers to provide signals on which we can responsibly act.'<sup>112</sup>

Where policy-makers have been slow to act, other important stakeholders have sometimes begun to pick up the agenda. Nowhere has this been more evident than through the supply chains of major multinationals. With revenues equivalent to the GDP of any one of Belgium, Sweden, or Switzerland, Wal-Mart is introducing supply-chain initiatives that are having a profound impact on the behaviour on its 60,000-plus suppliers. While still in their infancy, there have also been some interesting shifts in the willingness of global financial institutions to exert influence in shaping the behaviour of the corporate community.

The astonishing development in the number and extent of investor initiatives aimed at tackling pressing sustainability challenges ranging from corruption to climate change is one feature of this trend, with the Carbon Disclosure Project alone representing over 200 investors claiming over US\$30 trillion of assets.

The emerging battle lines were starkly drawn in the case of the TXU buyout bid by two private equity firms — Kohlberg Kravis Roberts & Co and the Texas Pacific Group — for \$45 billion. Non-governmental organizations (NGOs) including the National Resources Defense Council (NRDC), Environmental Defense, and Ceres had been campaigning against TXU's plan to build 11 coal-fired power stations in the US. Even though 150 coal-fired power plants are currently proposed in the country, TXU's \$10 billion coal expansion plan drew intense criticism in terms of the likely climate impacts. Ceres even convened some of TXU's largest shareholders, including CalPERS, CalSTRS, and the New York City Comptroller's Office, to bring pressure to bear. Strikingly, the private equity firms consulted critics ahead of the deal being signed and announced that they would drop eight of the proposed power stations. We expect more of this sort of power politics.

In the end, however, and for all they are welcome, there is a limit to how far individual, voluntary actions by companies or even by entire industry sectors can take us.

As Eamonn Kelly has argued, in dealing with the politics of sustainability the 'unit of analysis has to be greater than the single nation state, it has to be global because the ultimate consequences of failing states, terrorism, desperate poverty famine, water scarcity and climate change will be experienced everywhere globally.'<sup>113</sup> But the difficulties involved in this area are well illustrated by the reactions to the inquiry by Professor John Ruggie, the UN's special representative for business and human rights, which has been investigating the respective roles of governments and companies in tackling human rights abuses. Groups like Amnesty International reacted with dis-appointment when Ruggie concluded that despite 'certain weaknesses of voluntarism,' such initiatives do offer the potential for 'considerable innovation.' Amnesty said that it still wanted to 'make companies' human rights obligations binding.'

For globalization to be sustainable and at least somewhat civilized, it will have to be conducted on the basis of clear, mutually agreed and legally enforceable principles. While a great deal more work needs to be done on making lobbying more transparent, on stalling the sort of proposals originally advanced by TXU, and on building coalitions of interests across sectors to drive new agendas, our longer-term goal must be to create global governance mechanisms with the ability to agree and enforce rules of behavior and, ultimately, performance targets in such areas as climate change.



# Raising Our Game





Whatever the future holds, be it the vicious cycles of the Diamonds scenario or the eventual virtuous spirals of the Hearts world, the sustainable development agenda — or at least its key components — are entering the mainstream of business and, increasingly, political thinking.



# Place Your Bets

## 6

This round of the game is drawing to a close, but — as our report's title suggests — this project marks the beginning of a process for SustainAbility and our partners. Our next step will be to test the agenda priorities of six sectors against the scenarios. The sectors are: chemicals; energy; finance and capital markets; food and beverages; healthcare; and the knowledge economy. In the process, we plan to explore potential risks and opportunities in relation to the scaling of innovative, entrepreneurial solutions to sustainability problems — and, in particular, the future needs and contributions of the emerging economies.

Professionals in the field of scenario building insist that all scenarios be treated as equally relevant and likely, which is fine with us, but we conclude that the sustainability movement needs to find ways to help business: avoid areas likely to descend into Diamonds-like chaos — and, where appropriate, to work on prevention; balance the different competing economic, social, and environmental priorities in the Clubs and Spades worlds; and evolve the breakthrough business models, technologies, and strategies needed to leapfrog the global economy towards more sustainable outcomes.

Clearly we hope that a major pandemic (or equivalent shock) will not be needed to jump-start the process, as our Hearts scenario implies, but history suggests that our species tends to change its mind on big issues only after major discontinuities. However such changes are triggered, we conclude that, consciously or not, we have now embarked on the greatest gamble our species has yet taken. Trends in such areas as demographics, urbanization, industrialization, resource use, climate change, and both terrorism and counter-terrorism suggest that this century's global gamble in terms of sustainability will be a defining moment in the evolution of our species.

### Our G.A.M.B.L.E.

As we prepare to roll the dice, six factors are shaping our thinking. And, stretching a point, they can be summed up using an acronym: G.A.M.B.L.E. The six dimensions are these. First, the virtual inevitability of continued economic growth. Second, the acceleration and blurring of the environment in which business and other key players operate. Third, the policy and market mainstreaming of key components of the sustainable development agenda. Fourth, the collision of all of this with major political, economic, social, psychological, and ecological barriers, among others. Fifth, the crucial, central role of leadership, at every level in our political, market, and civil society systems. And, sixth, the fundamental principle of equity, the leitmotif running through the work of the World Commission on Environment Development and its 1987 report, *Our Common Future*.<sup>114</sup>

### Growth

The modern environmental movement was powerfully shaped by its limits-to-growth roots. Current evidence of planetary 'overshoot,' with our needs outrunning the capacity of the planet to provide, confirms the dangers we face in globalizing a flawed, unsustainable economic model. Even our current resource use already exceeds the regenerative capacity of the planet by 25%.<sup>115</sup> You could even argue that today's economic model is an economic tumour on the planet. Of our four scenarios, only Hearts is built around increasingly sustainable economic and business models, but both the Clubs and Spades worlds would need to see energetic experimentation on — and investment in — new technologies and business strategies. Companies like DuPont have long pursued 'sustainable growth,' but if we are to have any chance of bringing our global economy back onto anything like sustainable lines, concepts like WWF's 'One Planet Business' will be critically important. Note, however, that the current rate of global economic growth — indeed, growth in general — cannot be assumed. Indeed, some argue that the current era will be seen by posterity as a golden age.<sup>116</sup>

## Acceleration

Change is rarely linear — indeed, there are moments in history where it goes into overdrive. We are in the midst of one of those moments. Acceleration may be exciting, but it also brings associated problems of blurring — it becomes much harder to see and read the warning signs in the environment around us. And if we get things wrong, in terms of navigation, driving, or our assessment of fuel needs, the outcomes can be much worse than they would have been at lesser speeds. There is no need to rehearse here the trends that are accelerating the speed of financial markets, the turnover of CEOs, the release of sensitive information, the introduction of disruptive new technologies, and so ever on. That is now reality. One crucial implication: we need to make key strategic decisions early on in the process, or otherwise risk ending up very far from where we originally intended to go.

## Mainstreaming

By 2012, when the summit marking 40 years from the 1972 UN Stockholm Conference is convened, the chances are that the sustainability agenda will prove to have moved into a period of profound mainstreaming. Related concepts are now actively discussed in some of the leading venture capital and private equity firms, for example. They surface as a matter of course in the agendas and priorities of organizations like the World Economic Forum and Clinton Global Initiative. Meanwhile, there has been a proliferation of voluntary standards, among them the UN Global Compact and the Global Reporting Initiative (GRI). New rules and regulations are being introduced, often with global implications. A good example here is the EU REACH Directive, regulating the testing of chemicals. Much still needs to be done, however, to embed sustainability at the heart of our economic and business models, but powerful drivers — including those sketched in our scenarios — will likely turn up the heat under policy-makers and decision-makers, whether the ultimate outcome is breakdown, distraction, or (as we hope) breakthrough.

## Barriers

As our world accelerates and sustainability concepts push further into the mainstream, they will increasingly encounter major barriers to further progress. Think of the way in which the UN Security Council has resisted pressures to take effective action on a wide range of issues, from genocide to climate change. Sometimes we will remove one barrier, only to find others springing up. When the Berlin Wall went down and the Iron Curtain began to unravel, there were great expectations that we were moving into a borderless world. But, counter-current, new barriers are being erected or strengthened in places like the West Bank, Baghdad, and along the Mexico–US border. Others will likely follow. Nor will physical barriers be our only challenge — others are shaped by cultural, political, and market factors, as well as by our shared propensity to suffer from acute failures of imagination. And, as already noted, the processes of globalization themselves produce new barriers, whether in terms of xenophobia, protectionism, or the disorientating effects of massive economic dislocations.

## Leadership

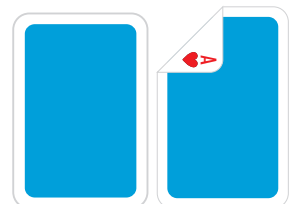
In a world of acceleration and barriers, leadership is at a premium. So is our ability to probe, to map, to navigate, and to steer around obstacles as we move towards our planned destinations. What is interesting about the current moment in time is that — with the US Administration largely in denial on climate change and ineffective in achieving real security for many of those it seeks to protect — leadership is emerging in different places, with a veritable explosion in bottom-up initiatives. One of the most hopeful trends has been the way in which business leaders have come together with NGOs to form advocacy and lobbying groups like the US Climate Action Partnership (USCAP). We have seen city mayors taking decisive action, like London's Ken Livingstone with his congestion charge, while, in the US, mayors and state governors like Arnold Schwarzenegger are showing what can be achieved at those levels to shape markets to drive investment in sustainability solutions.

By no means finally, the agenda is being driven forward powerfully by new breeds of social and environmental entrepreneur, from high-profile people like Wangari Maathai of the Greenbelt Movement and Muhammad Yunus of Grameen Bank<sup>117</sup> through to the people driving the burgeoning cleantech sector.<sup>118</sup>

## Equity

This was central to the Brundtland definition of sustainable development, embracing both intra-generational and inter-generational forms. At the time, inter-generational equity was less politically contentious than the intra-generational forms, but it is no accident that our breakthrough scenario (Hearts) assumes that both forms are energetically addressed and, over time, mastered. Sandwiched between our breakdown scenario (Diamonds) and Hearts, our other two scenarios suggest intense trading between various forms of equity. In the Clubs world, social equity is traded for a degree of environmental quality — albeit enjoyed by a sub-set of the global population. Here, for various reasons, environmental issues trump social equity. Think of the evolution of a new sustainable energy platform where billions are priced out of the emerging green market. By contrast, in the Spades world social equity broadly trumps environmental sustainability, whatever we may intend. Current forms of development and consumerist lifestyles spread, but at a growing cost to the environment.

Whatever the outcome of our next roll of the dice, sustainability cannot be left to chance. The time has come for us all to raise our eyes, our ambitions, our game.





**Figure 7.1**  
**Upwaves and downwaves**  
 Interest in sustainable development  
 1967–2007



## 20 Years of SustainAbility Research & Advocacy

Our research and advocacy programs explore – and help provide business insight into – the evolving corporate responsibility and sustainable development agendas. Ultimately, our research and wider advocacy work is intended to foster the development of a market system that rewards business for wider economic, social, and environmental value creation. A complete list of our reports is available online at [www.sustainability.com/insight](http://www.sustainability.com/insight)

As context, the diagram opposite shows SustainAbility's mapping of the societal pressure waves that have driven political, government, corporate, and financial market thinking and action in recent decades. We see three great waves to date, with a fourth building. As context for *Raising Our Game*, here is a plotted history of our research and advocacy programs since 1987.

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### Wave 1

Peak 1969–73

There was a rising tide of environmentalism, with much of the early pressure focused through the media on governments. Business was forced to do new things by legislation and enforcement and so was largely on the defensive. Towards the end of this period, SustainAbility heralded the coming second wave with two books: *The Green Capitalists* (1987) and *Green Pages* (1988).

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### Wave 2

Peak 1988–91

SustainAbility was founded as a for-profit company just as the second wave began to build, with a growing focus on working towards sustainable development 'with business, through markets.' The Wave 2 agenda saw an expansion beyond regulation to embrace market and citizenship approaches.

Our work at this time focused primarily on consumer campaigns, linked to a series of books aimed at the 'green consumer,' a term coined by John Elkington in 1986 (from *The Green Consumer Guide* in 1988 through to *The New Foods Guide* in 1999). We published surveys of NGO activity worldwide, including *The Green Wave* and *The Corporate Environmentalists*. We spurred the evolution of environmental auditing with our 1990 report *The Environmental Audit* and of life-cycle assessment with *The LCA Sourcebook*. But probably our biggest contribution as the Wave 2 agenda switched from early green competitiveness to a wider corporate citizenship agenda came through our many reports on corporate non-financial reporting, working with UNEP, and latterly Standard & Poor's under our 'Engaging Stakeholder' and 'Global Reporters' programmes.

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### Wave 3

Peak 1999–2001

Cut short by the 9/11 attacks and their aftermath, the third wave focused on globalization and two forms of governance: global and corporate. We had trailed the emerging Wave 3 agenda in 1997's *Cannibals with Forks*. Key publications during this period focused on governance. Examples include *The Power to Change* (alongside the International Business Leaders Forum); and reports on the business case with *Buried Treasure* and *Developing Value* (with UNEP and the IFC respectively); on the future of NGOs with *The 21st Century NGO* (alongside UNEP and the UN Global Compact); on the corporate responsibility aspect of offshoring in *Good Migrations*; on the socially responsible investment sector (*Values for Money*); on corporate lobbying (*Politics and Persuasion* and *Influencing Power*); on the media (*Good News & Bad* and *Through the Looking Glass*); on non-financial reporting (*Risk & Opportunity* and *Tomorrow's Value*); on evolving liability regimes (*The Changing Landscape of Liability*); and on corporate tax strategy (*Taxing Issues*). Much of this work was distilled into our bi-monthly newsletter, *Radar*.

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### Wave 4

Just starting

This period will likely see a growing focus on creativity, innovation, scalable entrepreneurial solutions, and the role of emerging economies. The expected Wave 4 agenda was outlined in 2001's *The Chrysalis Economy* and later in 2007 in *One Planet Business* with WWF-UK, which looked at ecological limits. Among our early Wave 4 initiatives have been the *Pharma Futures II* process (see [www.pharmafutures.org](http://www.pharmafutures.org)) and our expanding work on entrepreneurial solutions as part of our Skoll Program (see [www.sustainability.com/insight/skoll](http://www.sustainability.com/insight/skoll)). The first annual Skoll Program survey, *Growing Opportunity: Entrepreneurial Solutions to Insoluble Problems*, was launched early in 2007. In addition, we are working on a new round of our Developing Value work (*Developing Value II*) and on a new book, *The Power of Unreasonable People: How Entrepreneurs Create Markets to Change the World* (due for publication by Harvard Business School Press early in 2008). Our new focus on six sectors will also lead to a series of issue briefs and publications in the relevant areas (see [www.sustainability.com/sa-services/sectors](http://www.sustainability.com/sa-services/sectors)).

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## SustainAbility Sector Focus

**SustainAbility provides consultancy services to a growing portfolio of multinational businesses. We work with beacon companies whose influence extends across industry, as well as focusing on six key sectors whose strategies we believe will have profound impact upon the sustainability agenda.**

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### Chemicals

The impact of chemicals on people and the planet provided the impetus for modern environmentalism and still raises grave concerns today. But chemicals are also essential to our modern quality of life. The challenge for the sector is to address these legacies while also innovating for future sustainability. We bring insight to the challenges and opportunities of new REACH legislation, health and environmental impacts, emerging stakeholder concerns, issues regarding human rights, bodily trespass, and beyond.

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### Energy

The challenges associated with producing energy equitably and sustainably will define, in many ways, the standard of living for the population of the planet as well as the profitability and long-term viability of energy sector companies. Issues of geopolitics, climate change, supply security, biodiversity, bribery and corruption, new technology, and innovation are all at the heart of this sector's sustainable future.

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### Finance & Capital Markets

The finance and capital markets sector is central to helping business, investors, and entrepreneurs consider the relevance of sustainability for future markets. Switched-on investors, analysts, bankers, and insurers often talk in terms of environmental, social, and governance factors — or ESG for short. We aim to build bridges between actors capable of channeling capital towards the creation of new forms of value.

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## Food & Beverages

A sector that is currently in the spotlight both for the products that it offers and for the sustainability of its supply chain. At the point of sale, the focus is on health and nutrition as concerns around obesity and malnutrition rise. Companies also need to understand and address supplier issues such as the use of child labor, the prevalence of chemicals in agriculture, and equitable pricing for farmers. How companies address this range of issues will determine their future sustainability.

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## Healthcare

Global health challenges for the 21st century are profound. Emerging pressures like pandemics, climate change, population growth, and poverty are raising questions about what market and entrepreneurial solutions will be needed for the successful provision of sustainable healthcare in the 21st century. The potential of orphan drugs, the pressures of HIV/AIDS, the lure of lifestyle medicines, and the challenges of intellectual property and profitability will all influence the sector's future.

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## Knowledge Economy

The fusion of information technology and media shapes the mental frame in which many of us now explore and learn about the world. The knowledge economy provides huge potential to increase access and participation across industries, countries, political systems, and power structures. But currently the knowledge economy remains closed, inflexible, expensive, and difficult to use. This sector is potentially a great enabler when it comes to addressing issues such as climate change, energy efficiency, transparency, and inclusion.



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