FINDING THE WAY

EXAMPLES OF RESPONSIBLE BUSINESS

UNIVERSITY OF CAMBRIDGE
PROGRAMME FOR INDUSTRY

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Introduction

"The great thing about the dilemma we are in is that we get to re-imagine every single thing we do. There isn't one single thing we make or one single system we have that doesn't require a complete remake …What a great time to be born, what a great time to be alive, because this generation gets to essentially completely change the world." Paul Hawken, 'The 11th Hour'.

We are living in extraordinary times. The foundations of our economic and human development are being challenged by the force of nature. The gap between the 'haves' and the 'have nots' continues to widen and it is clear that the legitimate aspirations of most of humanity, if pursued through carbon intensive economies and under the current model of development, offer prospects only of further human suffering and environmental destruction. The question is ultimately whether humanity can bring about the transformation needed to secure its survival.

For business leaders and policy makers, such challenges may seem overwhelming and intractable. Paul Hawken envisions a future world made sustainable only through complete transformation of everything we do or have. We need such visionary thought leaders to spur us on our journey towards transforming how we conduct our economies, how we live in society, and especially how we live in relation to the natural world. But in practice much change starts with relatively small steps, led by dedicated individuals with an ability to innovate and a passionate determination to make a difference.

This publication brings together a selection of case studies from alumni of the Cambridge Programme for Industry (CPI), drawing particularly on alumni of The Prince of Wales's Business & the Environment Programme (BEP), but also of CPI's other programmes, and designed to help leaders understand the sustainability challenges and address some of the potential responses to them.

The cases are grouped using the Five Capitals Model. Developed by Forum for the Future and widely used in CPI's programmes, the model is one way of describing the stocks and flows of resources (natural, social, human, financial and manufactured) as they relate to a sustainable society and economy. The underlying message for business is that real value creation and true resilience is possible only if profitability is combined with a commitment to continuous innovation that helps to restore natural capital and build social and human capital. For us at CPI, this collection of case studies brings home three powerful messages:

Individuals can make a difference. Many of the projects and initiatives featured may only be small steps relative to the challenges we face, but they are testimony to the extraordinary energy and commitment of individuals. These alumni – our 'sustainability champions' – are often tireless agents of change in their organisations, playing the role of innovators, experts, facilitators, catalysts and sometimes even activists to drive the sustainability agenda forward.

Organisations are taking steps in the right direction. The cases show that companies, policy makers (and even cities, as with Bremen) are making genuine efforts to tackle sustainability challenges across the full range of the 'five capitals'. Once again the outcomes may not always be as much as is needed or even exactly what was intended, but it is clear that many of these initiatives are seeds of the greater transformation that is required to achieve the step-change to a sustainable world.

Learning communities are immensely powerful. This publication is a visible demonstration of a wider phenomenon at work in our programmes and alumni networks, namely the existence of an active learning community. In today's world of globalisation and rapid change, it is the stories that we share – of best practice and inspiring success, of challenges overcome and lessons learned – that are the invisible assets on which a sustainable future will be built.

It is in this spirit of sharing knowledge and learning that CPI has produced this alumni case studies report, with the generous participation of the featured organisations from our network. It is also this spirit which underpins CPI's new Cambridge Sustainablity Knowledge Network, which we are launching in 2008, and through which we plan to share many more of the great initiatives that our alumni are engaged in within their companies, the public sector and civil society organisations.

I trust you will find this publication both useful and inspiring, and I wish you all the best in your sustainability journey in 2008 and beyond.

Polly Courtice
Director, Cambridge Programme for Industry

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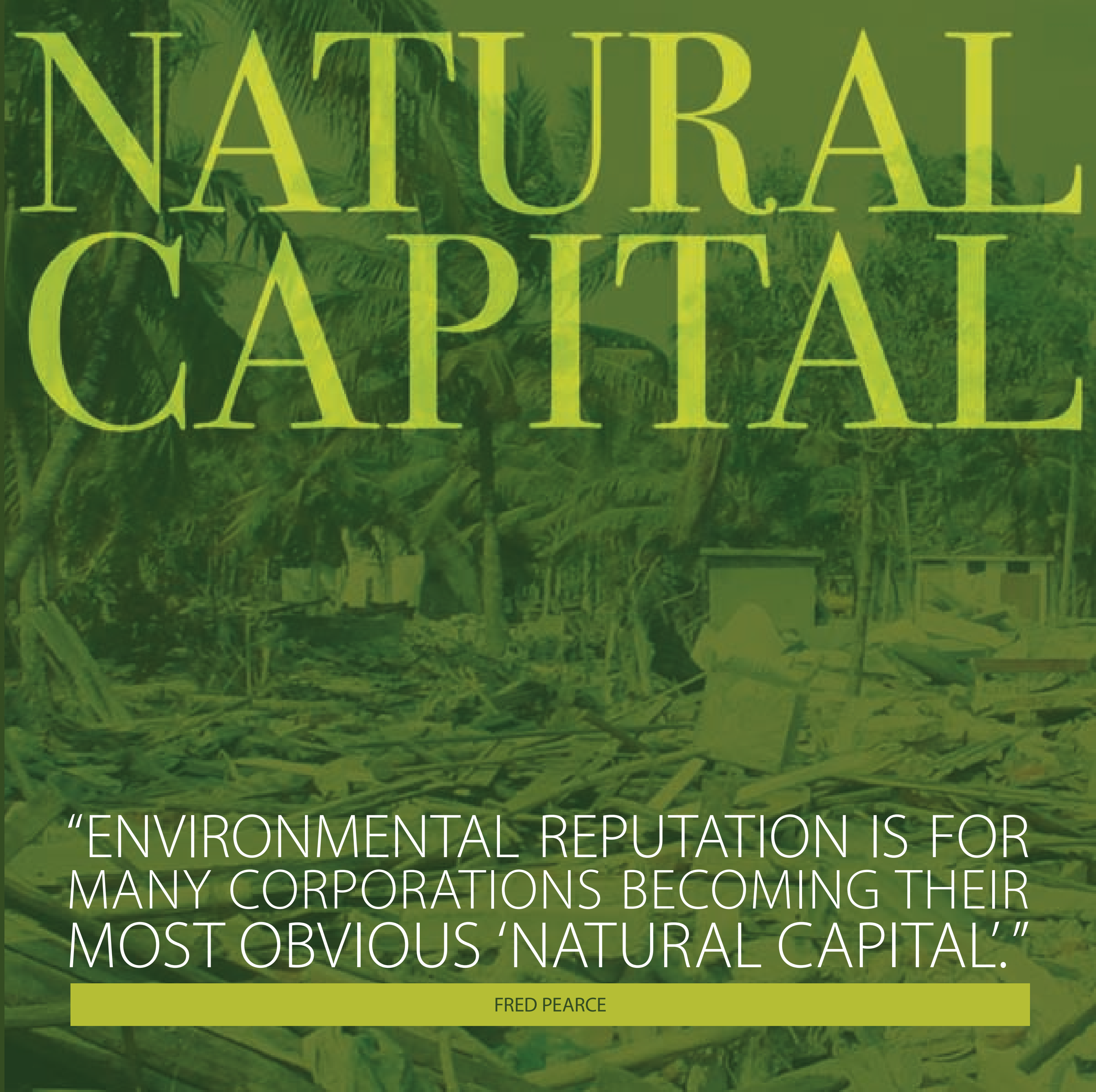

NATURAL CAPITAL

"ENVIRONMENTAL REPUTATION IS FOR MANY CORPORATIONS BECOMING THEIR MOST OBVIOUS 'NATURAL CAPITAL'."

FRED PEARCE

Introduction

Sir Nicholas Stern, in his famous report in 2006, called climate change the greatest market failure ever. Capitalism, he said, had no way of internalising the costs of damaged climate in lost lives, inundated infrastructure and desiccated fields. The same is true for the erosion of other parts of the planet's life-support system, its 'natural capital'.

Natural capital provides many essential ecological services. Not just direct natural resources like soils and water, but also sinks (such as the ability to soak up carbon dioxide) and processes like watershed protection and pollination. For most of these, there is no man-made substitute. Yet natural capital does not show up on any balance sheet or economic index, so there are few financial incentives to protect it. Planet Earth has little value in conventional capitalism, even though the economic system is a subset of the natural system.

Clearly, as threats grow to ecological services, we need laws, taxes and market interventions to penalise attacks on those services. But many say that capitalists themselves could benefit from rethinking their book-keeping to include natural capital, i.e. that they could realise direct benefits from conducting 'capitalism as if the world mattered'.

This is the challenge of natural capitalism, the 1999 manifesto of Paul Hawken, Amory Lovins, Hunter Lovins and others, which argues that "the new limits to growth are not boats but fisheries, not sawmills but forests". So companies have a growing interest in nurturing natural capital by minimising waste and improving efficiency.

In the decade since this manifesto was first propounded, progress in using the bottom line to protect natural capital has been fitful. Manufacturers are improving profits by 'closing the loop' through recycling waste. Even in the service sector, corporations are finding that there are real gains in cutting their carbon footprint – as our case study of BT shows. And Syngenta has discovered that farmers will seek long-term benefits to their soils by adopting conservation agriculture.

But in many spheres, the internal incentives are too small to make the big step-changes needed to protect global ecosystem services. It is hard to nurture resources you do not own. Growth is swamping efficiency gains. And the ability and willingness of governments to intervene has often diminished. The tragedy of the global commons continues to play out. But all is not lost. The market has other levers. Corporations increasingly recognise that their

environmental reputation in society is also a vital and limited resource. It attracts or repels both current account customers as well as the intellectual capital of employees and partners. And corporate reputations are bolstered these days less through the 'greenwash' of advertising and more through collaboration with environmental organisations or adherence to the sustainability standards of bodies like the Forest Stewardship Council.

Environmental reputation is for many corporations becoming their most obvious 'natural capital' – a crude proxy perhaps for the real thing, but a day-to-day limiting resource highly visible in the balance sheet.

Our two other case studies here reflect this. It in no way diminishes the virtue of the project to suggest that Barclays Bank benefits from planting a green roof on the Isle of Dogs not through any direct pecuniary advantage from protecting local biodiversity, but from an improved reputation among customers and employees. As its environment manager points out, "there was so much staff interest, we held the launch event three times".

Reputation and corporate prudence increasingly go hand-in-hand. Alcoa looked again at a mining project in Guinea after discovering many endangered species in its path. That was good PR, of course, but good business sense too, given the opprobrium likely if it had continued. And it required good proactive environmental science to spot the danger.

For some, this remains greenwash. But when reputation becomes a key form of natural capital, then natural capitalism can triumph.

Fred Pearce
Freelance journalist and science writer

1.1 Barclays

A Rooftop Revolution

Sustainability Issue: biodiversity
Sustainability Response: innovative conservation

It took decades for London's Isle of Dogs to be rebuilt after the wartime Blitz. But years before skyscrapers started rising, regeneration of a different kind had already taken place.

Wildlife flourished amid the demolition rubble, including nationally rare insects and birds, most notably a pair of endangered black redstarts. When Barclays began work on a new HQ in Canary Wharf and formed an environmental steering group to ensure the building's design and construction were as eco-friendly as possible, it was therefore a logical step to include measures to preserve local biodiversity. The result: a pioneering project to construct the world's highest 'living roof' specifically for biodiversity.

Andrew Flett, Barclays' Global Head of Environmental Sustainability and an alumnus of The Prince of Wales's Business & the Environment Programme (BEP), oversaw the project and takes up the story.

"The living roof idea coincided with Mayor Ken Livingstone's greening London initiative. Although there was no planning requirement to help the species retain a foothold in the area, we saw this as an opportunity to make a positive impact on our environment, neighbours and staff while acting as a beacon of biodiversity good practice for other businesses and developers.

As no living roof had been built at an altitude of 160 metres before, we turned for expert help to the founder of livingroofs.org, Dusty Gedge. He produced a species-led design, based on innovative Swiss technology, which created a mix of habitats to attract local biodiversity, especially the black redstart, one of Britain's rarest breeding birds. The concrete roof was overlaid with layers of rocks, pebbles, sand, soil and crushed concrete, creating an ideal environment for wild flowers and grasses to grow and foraging birds to gather. We also

"There is a lot of scope for large companies to promote green roofs, especially as an integral part of a new building's design. In Canary Wharf I would like to explore, through the BEP alumni network, whether our companies can build a series of 'stepping stone' green roof habitats for wildlife. "

Andrew Flett, Global Head of Environmental Sustainability, Barclays

planted a central strip of sedum mat with drought- and wind-tolerant plants designed to withstand the harsh roof environment.

After two years the living roof is doing exactly what it was designed to do. It is self-sustaining and not watered or cultivated in any way. The black redstart pair and other birds such as the wheatear and meadow pipit are using it, as are insects including crickets, bees, wasps, money spiders, ladybirds and grasshoppers.

The green roof cost less than £100,000 and we got the payback in 12 months in terms of phenomenal media coverage, employee engagement and showcasing our environmental policies. There was so much staff interest we held the launch event three times!"

Replicability

Biologists at Royal Holloway, University College London are collecting data to help

inform future design of green roofs focused on biodiversity. The media attention has also generated a lot of inquiries. 350 architects, developers, surveyors and representatives of UK and European regional development agencies have visited the roof.

Vital Statistics:

Barclays plc is a global financial services provider operating in over 50 countries, employing 123,000 people and servicing 27 million customers and clients.

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Alcoa

Protecting Nature through Partnerships

Sustainability Issue: development, biodiversity protection
Sustainability Response: partnership, biodiversity assessment plans

Usually it is botanists and biologists who discover new or rare wildlife. But in 2005 a mining company – Alcoa – revealed the presence of a rare crab and other globally endangered species in the remote jungles of Guinea.

The discoveries were made by tropical biologists commissioned on Alcoa's behalf by Conservation International (CI) to conduct a preliminary biodiversity audit on a prospective refinery site. Some of the area had not been surveyed in almost 50 years. The wealth of information the team collected is now being put to multiple use. Local communities and the Guinean government developed a biodiversity action plan while Alcoa is evaluating which less sensitive areas of the region might be developed.

Alcoa and Conservation International have conducted similar exercises – known as Initial Biodiversity Assessment Planning or IBAP – at prospective bauxite mine sites in Ghana and Suriname. The innovative partnership between an extractive corporation and a leading environmental organisation has brought benefits to both, as well as to developing countries whose biodiversity knowledge banks have expanded as a result.

"It was a real win–win opportunity," says Anita Roper, Alcoa's Director of Sustainability. "There were clear business benefits to us in having an early warning system as well as benefits for conservation and to local communities." Developed by CI's Center for Environmental Leadership in Business, IBAP helps companies to flag potential biodiversity issues and inform decision-making at the earliest stages of project development. It generally includes a two- to four-week rapid assessment in the field by international and host country experts, including consultation with local NGOs and communities. The mining company simply provides the opportunity, and in some cases the logistics.

"The first time companies generally look at biodiversity issues is at the environmental impact assessment stage. Often that is too late to meaningfully affect their decision-making on whether or how to go ahead with a project," says Marielle Canter, Conservation International's business practices senior manager. "These partnerships help fill that gap. They enable us to support companies to fully integrate biodiversity considerations into their management systems and to achieve clear and measurable conservation outcomes."

In all three countries where Alcoa and CI have collaborated, the results have not only enabled good decision-making by Alcoa, they have also provided valuable information for local communities and scientists and informed conservation strategies.

This remarkable looking frog may be a new species to science. It is from the genus Atelopus, and was discovered during a follow-up survey of the Nassau plateau in mid 2006 by Surinamese scientists Paul Ouboter and Jan Mol. A population of these frogs would be of significant concern, especially as it was found at the more disturbed of the two survey sites. This genus contains a number of neotropical species, many of which are listed on the IUCN Red List of Threatened Species due to population declines.

In Ghana, surveys of a potential bauxite mine in the Atewa forest reserve focused on threatened species (discovering one dragonfly new to science) and those plants and animals that local people relied on for food or medicine. The findings were shared at a well-attended workshop with local chiefs and community members as well as government agencies and non-governmental organisations.

In Suriname, the Rapid Assessment Plan (RAP) led to the discovery of a unique subspecies of frog, and of a catfish species – the dwarf suckermouth – not seen worldwide since the 1950s. Thus the RAP accomplished its task of sending up a red flag that a more comprehensive investigation would be necessary prior to any further activity in that area. This saved on exploratory drilling costs while avoiding future risks to the company's reputation. "The original assumption that all the available bauxite could be mined, would have led to incorrect economics, wasted time and wasted money," says Warren Pedersen, an alumnus of CPI's Business and Poverty Leadership Programme and Alcoa's managing director in Suriname. "Conservation International's longstanding presence in the country and understanding of the biodiversity and social issues at play fostered trust among Alcoa staff and helped the process work smoothly," he added.

Replicability

CI has overseen IBAP projects with seven mining, oil and gas companies and Canter describes the partnership with Alcoa – recently cemented with a formal memorandum of understanding – as the most prolific. According to Anita Roper, trust and transparency are the key ingredients. "You need to make the roles and responsibilities of each party very clear." Companies also need to embrace a shift in culture, she said. "Some people in our organisation were very worried about where working closely with an NGO was leading us. But our leadership said we needed to push the envelope on sustainability and it was a top-level decision to proceed."

Vital Statistics:

Alcoa is the world's leading producer and manager of aluminium products and components. It has 116,000 employees in 44 countries.

BT

Expanding the Sustainability Frontier

Sustainability Issue: energy use and climate change
Sustainability Response: carbon reduction strategy

FTSE and Fortune 500 companies which acted early to constrain their environmental impacts have reaped the rewards in cost savings and enhanced reputation. But as they strive to keep ahead of the field, particularly in reducing climate impacts, the challenges have become greater and the solutions more complex, as BT, a UK 'first mover' on climate change, has discovered.

After the telecoms giant exceeded its target of cutting carbon emissions by 58% between 1996 and 2006, BT's board raised the stakes considerably, approving an 80% emissions-reduction goal from 2006 levels by 2016. To achieve this, the company is planning a raft of initiatives including fleet efficiency improvements, renewable energy supply, carbon footprinting of all procurement contracts and changes in work practices to save energy and fuel use.

As one of the strategy's creators, Director of Corporate Responsibility Adrian Hosford candidly acknowledges, setting such a stringent target also requires betting on the company's future ability to remodel its core operations for a low carbon world. "It's getting very tough because we've already picked off the low hanging fruit. Seventy per cent of BT staff already work at home some or all of the time, for example. We did a certain amount of research on how we could reach the new target but there is also a leap of faith that we can find new products and solutions that do not already exist."

BT's green energy contract, one of the biggest in the world, is at the centre of its evolving 'carbon busting' strategy. Recently extended to 2010, it will see BT save the equivalent amount of carbon every year to the electricity used by the populations of Liverpool and Cardiff. Most of BT's 6,000 UK sites – responsible for 0.7% of national electricity use – will be powered by renewable energy and combined heat and power supplied by npower and British Gas Business. The company will also experiment with generating its own energy on-site, via solar panels and wind turbines.

Despite the scale of the challenge, or perhaps because of it, BT continues to see big business opportunities in carbon reduction. The emissions target, for example, will spur the company to innovate and refine its in-house networked IT services – including broadband technology and teleconferencing – generating in turn new products for customers.

"We wanted to make a contribution, but more importantly we believe first mover advantage is very important," says Adrian Hosford, who attended The Prince of Wales's Business & the Environment Programme in 2002. "The case for a 58% reduction in our carbon footprint was based around good environmental

"In 2002, I found The Prince of Wales's Business & the Environment Programme very inspiring. It creates a personal commitment and the kind of energy that helps to drive through radical change within organisations."
Adrian Hosford, Director of Corporate Responsibility, BT

practice and the cost savings it would produce. The targets were internal environmental management decisions. The new 58% commitment went to the board in December 2006 as a specific business plan and business opportunity. They were unanimously in favour, recognising that return on investment would take some time and we would have to break new ground."

The biggest challenge he foresees has less to do with technology innovation than with organisational culture. With many managers still reluctant to accept telepresence and needing to adapt to managing employees by outputs rather than timesheets, BT will be "doing a lot of work on the skills and capabilities side of our business as well as the hardware."

Replicability
Companies in service sectors such as telecoms have not always viewed carbon emissions reduction as being as relevant to them as to companies more heavily reliant on fossil fuels. But BT's experience suggests that "in every business there are ways to do things more sustainably," says Hosford, who proposes the following plan of action. "Make a board-level commitment to go down this road, then start with easier targets and build up confidence. Audit the major elements which make up your energy consumption and then address these one by one."

Vital Statistics:
BT is a leading global provider of communications solutions and services operating in 170 countries with 106,000 employees.

Syngenta

Harvesting Crops and Protecting Wildlife

Sustainability Issue: ecosystem protection, food supply
Sustainability Response: education and partnership

Soil is one of the most fragile natural resources, taking up to a century to produce a mere centimetre of crop-nurturing material. Yet arable farms across Europe are losing 200 million tonnes of topsoil each year, due to conventional heavy ploughing methods that cause erosion, reduced fertility and polluting chemical runoff. As a result, 16% of EU arable land is at risk of declining food production, with knock-on impacts for farmers' incomes.

In an effort to reverse this seemingly inexorable trend, Syngenta is leading a consortium of businesses, research institutions and NGOs promoting sustainable soil management through 'conservation agriculture'. Using field demonstration plots, farmers are educated in reduced tillage, the use of cover crops and other techniques designed to conserve soil and water, which also help prevent fertiliser and pesticide runoff.

The consortium is working through two initiatives funded by Syngenta and the European Union: the four year, €4m Soil and Water Protection project (SOWAP) in the UK, the Czech Republic, Belgium, Hungary and France for arable crops; and ProTerra, a €1m sister project in Spain, Portugal, Italy and southern France for perennial crops.
Both have yielded striking results. On average, the 13 demonstration sites produced estimated annual savings to farmers of €85 per hectare in reduced erosion. Soil loss fell by up to 90% and water run-off by up to 40% compared to conventionally tilled land, while crop yields were similar.

In areas of Spain where severe soil loss threatens olive production, ProTerra technicians have reversed erosion by employing cover crops that retain water in the soil. In the UK, biodiversity has flourished in SOWAP-managed fields as undisturbed soils harbour habitats and food sources for wildflowers, birds and insects. Skylark numbers have trebled and earthworm populations increased five-fold. Carbon reduction benefits have been recorded at all project sites due to the reduced use of tractor fuel and because less carbon dioxide is released when soil is left unturned.

For Syngenta, which supplied agronomists as well as funding, the projects provided an opportunity to promote sustainable good practice and demonstrate the environmentally beneficial use of their products. Herbicides are used instead of ploughs to manage weeds

Before and after: erosion blights a conventionally managed olive grove in Seville (left), while a ProTerra plot uses cover crops to conserve soil and water.

or ground cover without turning the soil; this reduces soil erosion and leads to significantly decreased sediment loads and water quality problems.

"Conservation agriculture has been practised piecemeal in different countries for many years, but nobody had really explained or demonstrated the science involved," says Andrew Coker, Syngenta's Head of Communications and Public Affairs, UK. "Our aim was not just to tell farmers what to do with their land but show them *why and how* they should do it."

Working through partnerships as well as media coverage and support from agricultural ministries in project countries was crucial to gaining credibility with farmers.

Consortium members represent a wide range of inter-disciplinary skills and include the National Trust, RSPB, Game Conservancy Trust and Cranfield University in the UK, the Hungarian Academy of Sciences, the Crop Research Institute in Prague, the universities of Evora in Portugal and Teramo in Italy and the French Chamber of Agriculture.

"Conservation tillage was a new concept in some parts of Europe and there was a lot of scepticism," says Juan Gonzalez-Valero, who attended The Prince of Wales's Business & the Environment Programme in 2006 and who was closely involved as the head of Syngenta's sustainable agriculture stewardship programme for Europe. "If we had talked to farmers just from an environmental viewpoint they wouldn't have listened. They wanted to hear from agronomists and to see practical benefits to the local environment and their incomes."

Scaling Up

While not all soils or crops are suitable for conservation agriculture techniques, SOWAP estimates that 60% of Europe's arable land makes the grade. Reduced tillage is already practiced on 45% of UK arable land, over 20% in France and close to 20% in Portugal, Spain, Belgium and Italy. A key project objective is to disseminate findings to a wide audience through workshops, open days and farmer outreach activities. The data generated will also be channelled to government agriculture ministries to help shape future policies.

Vital Statistics:
Syngenta is a global agribusiness company, employing around 21,000 people in over 90 countries.

ENGAGING WITH CPI

Climate Leadership Programme

The Climate Leadership Programme (CLP) was developed in association with The Climate Group and Duke University to help senior business executives understand how to seize the business advantage inherent in addressing global climate change. By the end of 2008, it will have run three times in the UK and twice in the US and is providing a top-level international network for the exchange of ideas and best practice for sustainability.

The Programme brings together senior business, government and not-for-profit leaders. Delegates are given the opportunity to get to grips with the science and scenarios as well as to explore the impacts of climate change on their own organisations. They discuss how a low carbon world might look, as well as the changes that would be needed in order to bring it about. Key barriers that have so far prevented such a world from becoming a reality are explored as well as the opportunities that it would unlock.

In addition to discussing ways of taking climate change into account as both a strategic risk and an opportunity, CLP delegates are encouraged to develop case studies based on activities undertaken as a result of participation in the course. Some have already found ways to involve their customers and the wider community in tackling the issue of climate change. For example, James Stacey of Standard Chartered, who attended the first CLP in October 2007, worked through his organisation's environment initiative to launch the 'Race for a Living Planet' (www.thegreatestrace.com). This included a pledging campaign (involving clever but simple things everyone can do), an international carbon calculator and a humorous video. The campaign was supported by Standard Chartered's $1m donation to WWF, shared across the three countries which attracted the most support from pledges: Brunei, Taiwan and Hong Kong.

Chronos

CPI is always delighted to welcome people on its learning programmes, but when a company needs to embed sustainable development thinking into its organisational culture, it is usually not possible for every employee to attend a face-to-face seminar. 150,000 people around the world have now, however, had the opportunity to take part in one of CPI's other learning programmes: its e-learning tutorial Chronos.

Chronos was developed by CPI in partnership with the World Business Council for Sustainable Development as an introduction to the business case for sustainable development. It is not intended for the sustainability expert but for employees at every level. Its mixture of information, video clips and interactive sessions such as role plays and quizzes engages and educates the learner simultaneously. Users have the opportunity to test their own knowledge and attitudes as well as see how they would handle a variety of business dilemmas.

There are now over 150,000 Chronos users in 200 companies around the world. Fifteen of these organisations have chosen to customise Chronos to include their own material, such as a video by their CEO or a summary of the company's sustainable development strategy. For UOP, Chronos reinforced previous communications that outline the business, social and environmental benefits of sustainable development for the company and its customers. ABN AMRO Managing Board member Huibert Boumeester, who provided the foreword to ABM AMRO's version of Chronos when this was rolled out around the entire company, noted that Chronos demonstrated that integrating sustainability into the bank's business was not only feasible, but that it could increase the company's brand value, contribute to employee pride and above all limit risks and create new business opportunities.

A Portuguese version of Chronos was launched in Brazil in 2005

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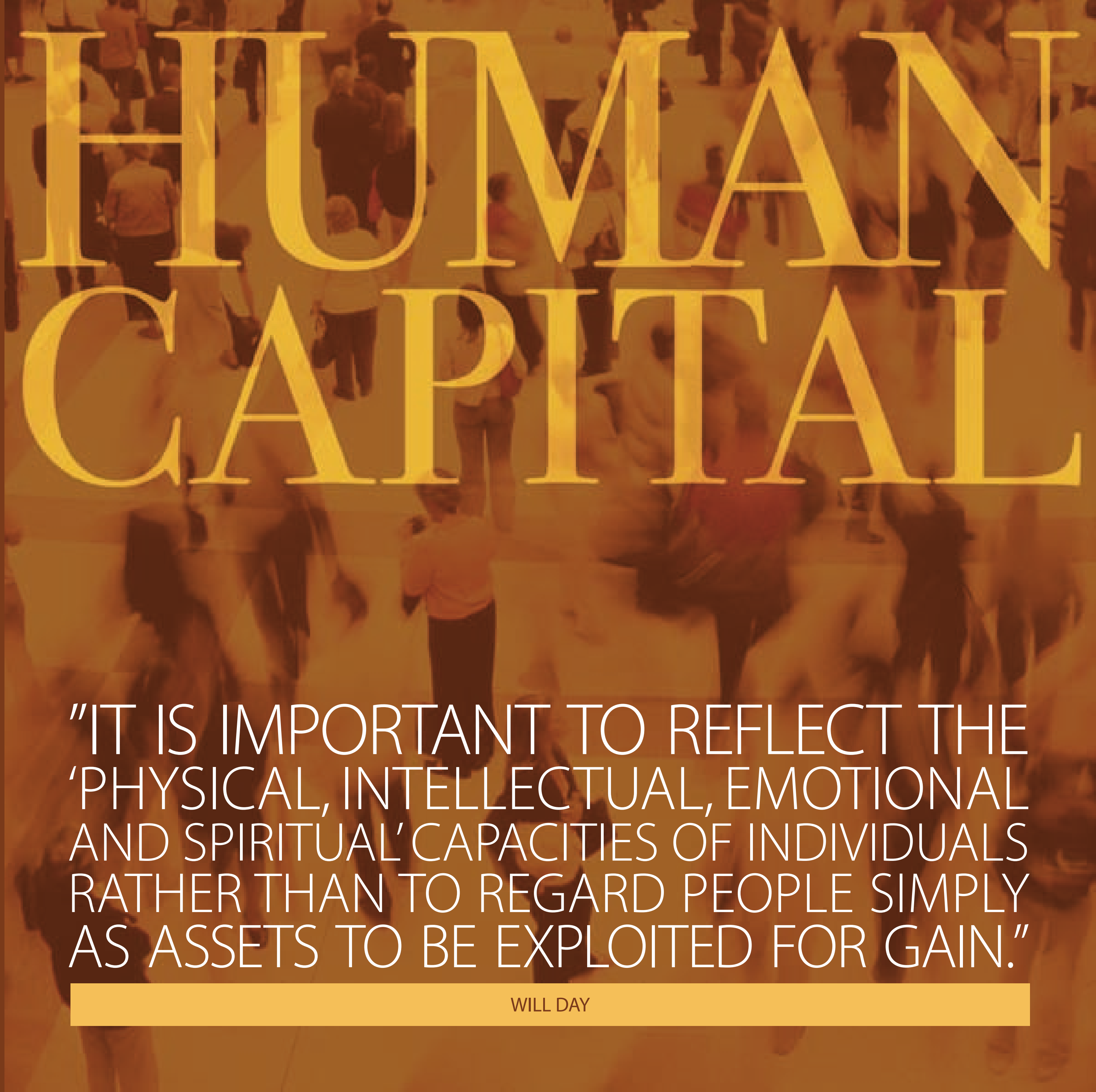


HUMAN CAPITAL

"IT IS IMPORTANT TO REFLECT THE 'PHYSICAL, INTELLECTUAL, EMOTIONAL AND SPIRITUAL' CAPACITIES OF INDIVIDUALS RATHER THAN TO REGARD PEOPLE SIMPLY AS ASSETS TO BE EXPLOITED FOR GAIN."

WILL DAY

Introduction

The claim that 'our people are our greatest asset' has become a corporate cliché. Whether in the past this was always a sincere declaration, supported by appropriate investment and energy, we will leave aside for the moment. Certainly in recent years, successful companies have been increasingly putting their money where their mouths are on this subject.

In some cases the initial motivation behind the trend was hard-nosed and defensive. Multinational oil companies, for example, realised that they had a problem when the 'brightest and best' graduates were either not applying to work with them, or were embarrassed to admit to doing so. Retention of 'the best' is as important as recruitment and their inability to do so represented a competitive business threat.

The linking of 'human' and 'capital' can cause unease amongst some who fear that it is a thinly veiled means to better exploit individuals by reducing them to mere corporate assets. Under the 'five capitals' framework, however, a broader definition of human capital has been developed which recognises that it is important to reflect the 'physical, intellectual, emotional and spiritual' capacities of individuals rather than to regard people simply as assets to be exploited for gain. This definition extends beyond the factory gate, and implies that in the long term it matters how companies treat not just their own their staff, but also those engaged in supply and distribution chains and increasingly their consumers.

It is no longer sufficient to ensure that your product is manufactured safely and that you protect your staff as they do their work if, as in BP's example, the final product is being abused by one of the most vulnerable groups in Australia. It is not enough simply to provide your staff with anti-malarial drugs if their families and the wider community in which you operate are languishing. In the case of AngloGold Ashanti, the company shared the problem of malaria with the communities (and the economy) of which it is a part. Their solution needed to do the same. Be it dirty water in Kenya or fuel poverty in Scotland, as in two of the other examples here, there is an increasing recognition by companies that thoughtful investment in people pays dividends.

What is also striking about the examples below is the role that collaborative action has played in each of them. The government of Australia, UNICEF/WHO, Defra, Ghana's National Institute for Communicable Diseases and Wits University have all been part of the featured responses to issues of health and wellbeing. This recognises that there are limitations to what companies can do well as they move beyond their core competencies, and that they will need to identify others with whom they can collaborate.

It also reflects the fact that, however important it is for businesses to take seriously their responsibilities to the people with whom they interact, human capital should not be seen solely a corporate responsibility. Health, knowledge, skills and motivation are all vital components of a healthy economy and society, and the enhancement of human capital through education and training and health provision is also a vital function for government.

Will Day
Special Advisor to the United Nations Development Programme
Senior Associate, Cambridge Programme for Industry

BP

Saving Lives through Innovation

Sustainability Issue: health
Sustainability Response: product innovation

"As I write I can see a ten-year-old girl outside the window, half a Coke bottle filled with unleaded petrol tied over her mouth and nose. She may well never reach her 12th birthday."

When this email from a community representative in the remote Australian outback reached BP's Melbourne head office in 2002, the effect was galvanising. The company had recently begun to research disturbing reports that petrol sniffing was blighting the lives of 50% of young people in some Aboriginal communities and killing or brain damaging several dozen people a year.

"We were part of the problem as it was our fuel the children were sniffing," says Gerry Hueston, President of BP Australasia and alumnus of The Prince of Wales's Business & the Environment Programme of 2006. "When that email arrived, it was such an emotional cry for help we sent people out to the communities right away to see what could be done."

BP's representatives used community development approaches to build trust through open dialogue and face-to-face consultations in the worst-affected townships and sought guidance from parents, schools, community and government workers and young people who sniff petrol themselves on how to tackle the epidemic. What they heard persuaded the company to embark on a major challenge in product innovation: developing a new fuel with lower vapours. Within two years, a concerted team effort by several BP business units had paid off. Technical experts working with Kwinana Refinery in Perth invented an original unleaded motorspirit blend, named Opal, which omitted the aromatic compounds that give a 'high'.

Toxicology experts conducted stringent assessments. The transport infrastructure business unit worked out the logistics of delivering to tiny communities scattered across an area the size of Western Europe. BP's external communications team also worked with the federal government which allocated A$40m to subsidise Opal's transportation to the outback, thus making its production commercially viable.

"The number of people involved was striking," recounts Gerry Hueston, "and the effort paid off". BP's partnership with the federal government, critical to Opal's success, made sense for both parties, he added. "The Government was facing a huge, intractable problem with a generation of Aboriginal children just wiping themselves out. So we thought if we can deal with the petrol end of the problem that would be a win–win for both ourselves and the government."

Matthew Brown, 23, a resident of Papunya in Australia's remote Northern Territory, was chronically addicted to petrol sniffing and attempted suicide. He is now a promising young football player.

“The advent of Opal has prevented 90% of petrol sniffing in Australia.”
Gerry Hueston, President, BP Australasia

Opal was launched in 31 communities – average population 500 – in February 2005. Demand soon spread and by summer 2007 it was supplied to over 100 communities, covering 2.1m sq km across Northern Territory, South Australia, Western Australia and Queensland. The social impact has been significant, with reports indicating that most young people have stopped sniffing since its introduction. Thanks to BP-funded youth recreation camps and back-to-school initiatives, some also found jobs within a year.

“The advent of Opal has prevented 90% of petrol sniffing in Australia,” says Gerry Hueston, who considers BP’s investment well worth the outcome in terms of community relations, partnership with government, media acclaim and competitive advantage.

Asked why the company chose to act when its competitors remained silent on the issue, he cites ‘mutual benefit’ as the driving force. “This kind of project has become part of BP’s values system,” he explains. “If you want to have a long-term, sustainable presence in a community, then you and your product must have a positive impact on that community.”

Replicability
Petrol sniffing is endemic among indigenous communities in 19 countries. Already, the Canadian and Alaskan authorities have sought information and advice from BP with a view to replicating their efforts.

Vital Statistics:
BP is one of the world’s largest energy companies, employing over 100,000 people, active in 100 countries and operating 24,600 service stations worldwide. BP Australia has 3,000 employees and operates 1,350 service stations. Its activities also include natural gas and oil exploration.

Highland Council

Fuelling Prosperity

Sustainability Issue: climate change and fuel poverty
Sustainability Response: innovative green energy supply

Fuel poverty is a major problem in the Scottish Highlands where long, cold winters trigger high energy bills. Climate change has also become a tangible concern, with harbour walls raised to cope with rising sea levels and storm surges.

In the coastal town of Wick, the regional Highland Council addressed both problems simultaneously via an innovative green energy project which would cut heating bills and carbon emissions while creating local jobs.

The plan was for more than 200 low income households and the Wick whisky distillery to receive combined heat and power from woodchip fuel sourced from sustainably managed local forests. The wood is transformed into energy using innovative gasification technology developed at the University of Newcastle. Monthly energy bills for the three-bedroom council homes, which previously ran on fuel oil, would reduce from £30 to £8 and CO_2 emissions-savings of over 5,000 tonnes were expected in the first year alone.

Elizabeth Marshall, an energy finance specialist who attended CPI's Postgraduate Certificate in Cross-Sector Partnership programme, developed the project when serving as the Highland Council's area development manager. "The main driver was economic regeneration, but climate change was also a factor," she says.

"The wealth-creation impact is enormous, especially as all surpluses will be reinvested locally. Not only can household bills be cut, but up to 40 new jobs would be created supplying wood fuel and ten jobs saved at the distillery due to reduced energy costs."

Two key factors – planning and partnerships – were critical to success. With funding from the UK Department of Environment, Food and Rural Affairs (Defra), the project team and energy consultants spent two years mapping the town's heat use, researching local renewable energy sources and consulting with low-income households. This process won community backing for biomass power. It also identified the whisky distillery as the best site to capture energy for re-use, as daily heat loss from the distillery's operations equaled 60% of the heating and hot water needs of 600 houses.

The next step was to set up a non-profit operating company, Caithness Heat and Power Limited, with three founding partners – the Highland Council, Inver House Distillers and Pulteneytown People's Project, a local regeneration charity. Using the Defra grant, matching funds from the Highland Council and bank loans, and with technological input from Newcastle University's Department of Engineering, the new company constructed a cutting edge combined-heat-and-power 'energy centre' adjacent to the distillery. This houses a wood-chip storage and handling area, stoking and drying system, boiler, high-temperature wood-chip gasifier, electricity generator and a cooling system, as well as a backup oil-fired boiler system.

By employing heat exchanges with the distillery, enough energy is saved to make the wood-fuel system highly economic. Energy created by gasifying the wood heats water which is pumped first into the distillery, fuelling its operations, and then into heating pipes and domestic hot-water tanks on the neighbouring council estate. The wood is sourced from within 50 miles of Wick and replanting of fast-growing native species will make the process carbon neutral.

Scaling Up

Financing is the project's main challenge to-date and the biggest obstacle to regional scale-up.

"You need a lot of money upfront – £7.6m so far in Wick," cautions Elizabeth Marshall, who is now a Director of Biox Consultants Ltd, and is seeking funds to expand biomass energy supply to public buildings, hotels and businesses in the town. "A scheme like ours can really be replicated anywhere, in cities, towns or rural areas, as long as you map local energy uses carefully and design your networks to minimise waste. But to roll out on a nationwide scale you need credit guarantees to provide security for banks loaning the start-up money."

To this end, she wrote a proposal with Scottish and Southern Energy for a £2bn government-funded, renewable heat energy credit guarantee scheme.

Note: since this case study was written, the project has run into financial problems. Whilst the 240 houses in the district heating scheme continue to receive heat and hot water temporarily from an oil boiler, the tri-sector partnership which had been formed in 2004 was dissolved in July 2008 and the project ownership given over to the Highland Council as late commissioning of the new technology overstrained the partnership budget and required a ' big brother' to provide financial guarantees until the wood-burning technology problems were resolved.

Vital Statistics:

The Highland Council is the regional authority for a third of Scotland, with a scattered population of over 211,000. Its territory covers 26,484 sq km; 15% is forest cover.

AngloGold Ashanti

Mining Community Spirit

Sustainability Issue: poverty and ill-health

Sustainability Response: education and engagement

AngloGold Ashanti (AGA) is the major employer in Obuasi, a rural township of 201,000 people four hours north-west of the Ghanaian capital, Accra.

Gold has been mined locally for more than a hundred years, and AGA's present mine provides jobs for 7,400 people. Until recently, however, both the community's health and operations had been badly affected by the ever-present scourge of malaria.

Across Ghana, malaria is responsible for a third of all hospitalisations and half of all outpatient cases and Obuasi was no exception. In 2005, of the average 6,700 malaria cases treated every month at the company hospital, 2,500 were mine employees. Not only were the human costs enormous but the company lost approximately 7,400 working days every month to the disease and paid out about US$22,000 in employee treatment costs for malaria medication.

In its 2004 Report to Society, AGA had already identified malaria as "the most significant public health threat" to its operations in Ghana, Mali, Guinea and Tanzania. In Obuasi, its leadership therefore decided to take a strategic approach, combining a community health programme and a research-led Malaria Control Centre with an ambitious remit: to serve as "a gateway to effective malaria control in Africa". Malaria experts were recruited from the Noguchi Institute at the University of Ghana, the National Institute for Communicable Diseases, South Africa and the University of Witwatersrand, Johannesburg.

The programme's first step was to identify mosquito species, insecticide susceptibility and parasite prevalence in Obuasi and to ascertain community knowledge of malaria. Multiple interventions followed, combining the Indoor Residual Spraying (IRS) of 134,000 structures in Obuasi and surrounding villages; intensive community advocacy and education aimed at changing lifestyle habits to reduce mosquito breeding and malaria transmission; effective diagnosis and disease management; and monitoring of disease incidence and insecticide resistance. Local people were trained and employed as sprayers, creating 127 permanent new jobs.

In mid-2007, after three rounds of IRS, malaria cases at the Obuasi mine hospital had dropped to 2,180 a month, 490 of them employees, a 73% drop in under two years. Direct monthly treatment costs for malaria had fallen to around US$4,000.

AngloGold Ashanti trained and employed local people as sprayers and instigated an intensive community advocacy and education programme.

According to Alan Fine, who attended The Prince of Wales's Business & the Environment Programme in 2006, the project's key innovation was the use of an integrated approach including continuous interaction with the communities in which they operate. "An important part of any malaria campaign is community awareness. You can hand out as many medications as you like, but if people don't use them, or don't use them properly, it damages the programme's effectiveness." AngloGold's Malaria Control Manager Steve Knowles expanded on this point. "There are regular meetings with community committees, social gatherings, a weekly local radio slot, advertising banners and media articles. We also recruited the Obuasi Community Malaria Volunteer Advocate Corps, which is probably one-of-a-kind and provides a vital liaison for our work among the communities." Members of this 120-strong corps receive training in disease cause and prevention from AGA's malaria control team and a quarterly allowance.

The biggest challenge, according to Knowles, was ensuring the recruitment of honest, well-trained and motivated sprayers. This was achieved by combining intensive community outreach with stringent selection criteria and high-quality training. He traces the programme's impressive success to "management's total commitment, the community's ongoing support and the dedication of the spray operators".

Also innovative in its scale and integrated facilities is the Obuasi Malaria Control Centre, opened by Ghana's president in 2006. Combining a laboratory, insectary, GIS-based satellite malaria information system, a planning and strategy unit and training facilities, it is acknowledged as possibly the best privately owned facility in Africa and will be used by Ghanaian medical research institutes, universities and government agencies.

Scaling Up

AngloGold Ashanti plans to replicate Obuasi's ongoing, US$1.4m a year malaria control programme in its mining communities in Ghana, Tanzania and Guinea and to share its successful approach with other multinationals operating in Ghana. The company's malaria experts have also assisted Ghana in seeking financing from the UN Global Fund to Fight HIV/Aids, Tuberculosis and Malaria for a National Malaria Control programme – using the Obuasi model as the basis for the proposal.

Vital Statistics:

AngloGold Ashanti is a leading gold mining and exploration company, operating in 10 countries on four continents. Based in Johannesburg, South Africa, it employs 60,000 people worldwide.

Maureen Mwanawasa Community Initiative

New Livelihoods, New Lives

Sustainability Issue: poverty, women's empowerment
Sustainability Response: livelihood support, market access

The history of anti-poverty programmes in Africa is littered with well intentioned failures: projects that created dependency on handouts or funded infrastructure that communities could not maintain. Successful and sustainable development, on the other hand, empowers the poor and enables them to provide for their own needs.

One such model is being pioneered by the Maureen Mwanawasa Community Initiative (MMCI) in Zambia, one of Africa's least developed countries, where 80% of households have no source of income. To create sustainable new livelihoods, the NGO came up with the simple but effective idea of donating $100 each to 17 rural women's clubs to buy 25 goats. The only condition was that the first 25 kids born would be passed on to women's clubs in other villages, creating a self-replicating model. While the clubs maintain a stock of animals, individual members also take out 'loans' to purchase their own goats, repaid by passing an equal number of kids on to other families.

Launched in 2002, within five years the project had expanded to 310 clubs in six districts of Zambia's Southern Province, benefiting 50,000 people. MMCI also facilitated access to commercial meat markets via Zambeef, the country's largest meat company, resulting since 2004 in annual profits to the goat clubs of $11,200.

The many benefits for families have included improved nutrition from goat meat and milk, access to schools and healthcare (paid for by selling goats) and improved status for women.

The goat project addresses children's rights and needs by improving their nutrition and covering the costs of their education.

"My involvement with The Prince of Wales's Business & the Environment Programme has had an impact on my ideas and approaches. I am a changed person mentally, socially and intellectually. During my interactions with CPI, I have come to understand issues such as corporate social responsibility, climate change, sustainable development, wealth creation and many other concepts. This knowledge has been used to rethink and redirect MMCI programmes and expand them, with the aim of adding business sense to the projects."

Maureen Mwanawasa, First Lady of Zambia

"Now we follow our wives by hanging on to their wrappers, as they are the ones with the money," commented one goat owner's husband. Mothers who are HIV positive have also been able to substitute goat milk for breast-feeding and young single mothers receive priority for goat loans.

"The goat project is unique in Zambia and the world," says Ms Mwanawasa, Zambia's First Lady. "It is self-evaluating in the sense that benchmarks are outlined and explained to the recipients. The expectations for measuring success include putting food on the table, sending children to school, and leaving money in their pockets."

The success of the project's simple and easily replicable model has attracted scale-up support from around the world. COMESA (Common Market for Eastern and Southern Africa) is funding animal husbandry training for women's club members while US charity Hands of Hope bought 250 goats for existing clubs and donated US $20,000 to fund expansion into other regions of Zambia. The Zambia National Aids Network has provided skills and training for club members.

Scaling Up

MMCI is seeking more partners to speed up and scale up the expansion of goat clubs across rural Zambia. "The value of partnerships in the development process in any sector cannot be over-emphasised," said Ms Mwanawasa. The model piloted by MMCI, she added, could also be copied in other African countries by governments as well as NGOs.

CPI would like to thank Frank Rose for his assistance in preparing this case study.

Vital Statistics:

The Maureen Mwanawasa Community Initiative (MMCI) is a social welfare NGO established by the First Lady of Zambia in 2002. Its programmes cover education, healthcare, empowerment and social welfare.

Business & Poverty Leadership Programme (BPLP)

According to the World Bank, 2.7 billion people live on less than $2 a day. The persistence of widespread poverty and growing inequality within and between nations is not only debilitating for those affected but also threatens stability and the possibility of achieving consensus on major global challenges such as climate change.

Does business have a role to play in tackling poverty? If so, can it do so using existing business models? Are there opportunities in doing business with the 'base-of-the-pyramid'? The BPLP seminar addresses these questions, with the aim of enhancing understanding of poverty and social conditions in developing countries. It looks at product and process innovations, creative approaches to supply chains, experiences of working with local communities and NGOs and the challenges of making business sustainable in situations where governance systems are often weak.

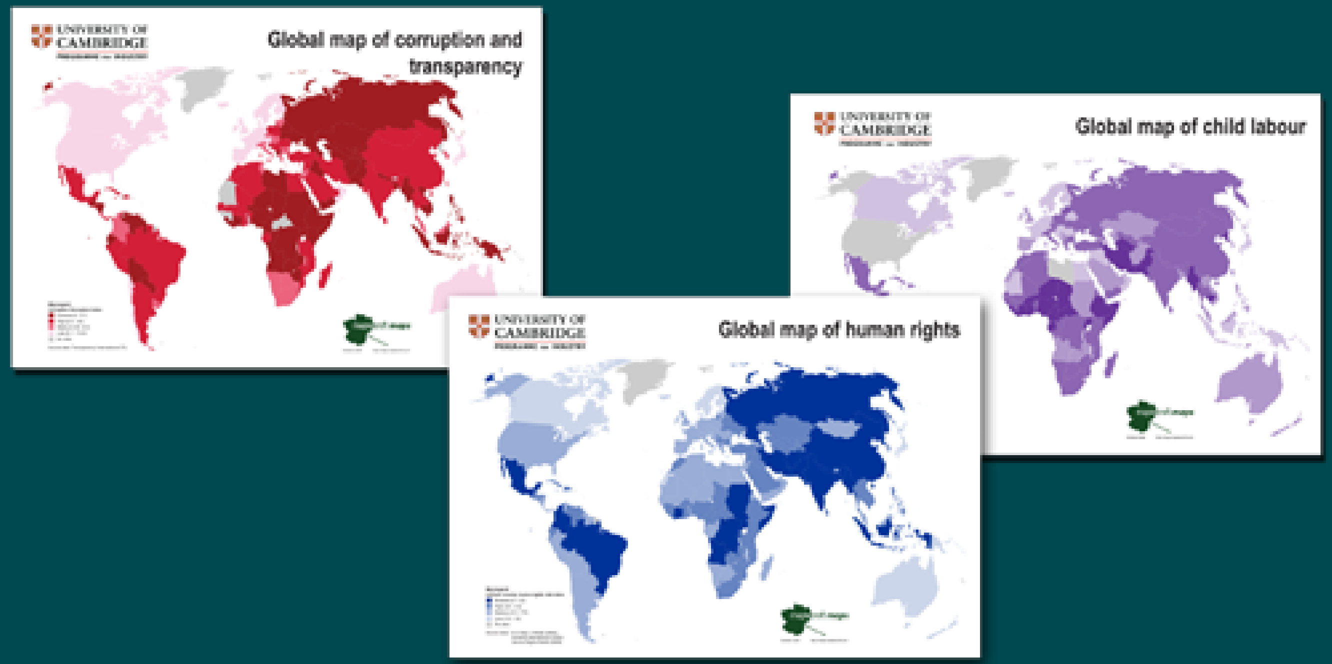
Two cases, from Unilever and Coco-Cola Sabco, illustrate the types of issues explored in the Programme.

Unilever decided to measure its social footprint in a large developing country, Indonesia. This innovative undertaking, conducted jointly with a frequent critic of the company, Oxfam, looked at the company's impact on poverty. Such footprint studies are rare and in an early stage of development.

The analysis looked at the whole value chain, from sourcing through production to marketing and distribution. It analysed who received what portions of the corporate 'pie', examining the slice going to shareholders, local and foreign, to government (via taxes), to employees, suppliers and their employees, and to all involved in retailing. Delegates at the 2007 BPLP seminar analysed this case with two of the lead authors of the report, one from Unilever and the other from Oxfam.

Coca-Cola Sabco is a South and East Africa company which bottles and distributes a range of drinks across South and East Africa and parts of Asia. A major challenge is how to distribute its products to over 290 million consumers in countries where unemployment is often high, transport infrastructure weak and political conditions not always stable.

To deal with this, the company has developed a low-cost manual operation to service an emerging urban retail market where classic distribution models are not effective. The company provides retailers with training in business as well as in generic subjects such as literacy and HIV/Aids. It retains ongoing contact with the outlets in order to maintain standards. There are now 3,000 Manual Distribution Centres employing over 10,200 people and the network has been the main driver of the company's double-digit sales growth. The BPLP seminar looked in detail at this case study and critically analysed the model with a senior company executive.



The Bali Communiqué

The Bali Communiqué was an initiative of The Prince of Wales's UK and EU Corporate Leaders Groups on Climate Change, two groups that are developed and run by CPI.

The Communiqué was published in advance of the UN Climate Change Conference in December 2007 in Indonesia. It took the form of a call to world leaders from the business leaders of 150 global companies for a comprehensive, legally binding United Nations framework to tackle climate change. The Communiqué was published as a full colour, double page, centre spread advert in the Financial Times global edition and was complemented by an article by The Prince of Wales himself in the same edition in which he congratulated the companies for showing "remarkable leadership" and expressed his "fervent hope" that the Communiqué would "strengthen the resolve of those gathered in Bali to make the tough decisions the world so urgently needs".

The Communiqué called for rigorous targets to be set, based on science and common sense. It also noted that "the scientific evidence is now overwhelming" and that "climate change presents very serious global social, environmental and economic risks and demands an urgent global response". Signatories presented a strong case for action by stating that "as business leaders, it is our belief that the benefits of strong, early action on climate change outweigh the costs of not acting".

The 150 global companies argued that the costs of action are manageable but that each year of delay will result in greater disruption. The leaders also affirmed that "the shift to a low carbon economy will create significant business opportunities" and that a "sufficiently ambitious, international and comprehensive legally binding United Nations agreement to reduce greenhouse gas emissions will provide business with the certainty it needs to scale up global investment in low carbon technologies".

This Communiqué represented an unprecedented global corporate alliance. Signatories were CEOs of major international companies headquartered in the United States, Europe, Australia and China. US companies included The Coca-Cola Company, Dupont, Gap, GE, Johnson & Johnson, Nike, Sun Microsystems and United Technologies. European companies included Anglo-American, British Airways, F&C Asset Management, Ferrovial, Nestlé, Nokia, Rolls Royce, Shell, Tesco, Virgin and Volkswagen. Australian companies included Insurance Australia Group, Macquarie, National Australia Bank, News Corporation and Westpac. The Communiqué was also signed by a number of Chinese companies including Shanghai Electric, Zhufeng Technology and Suntech.

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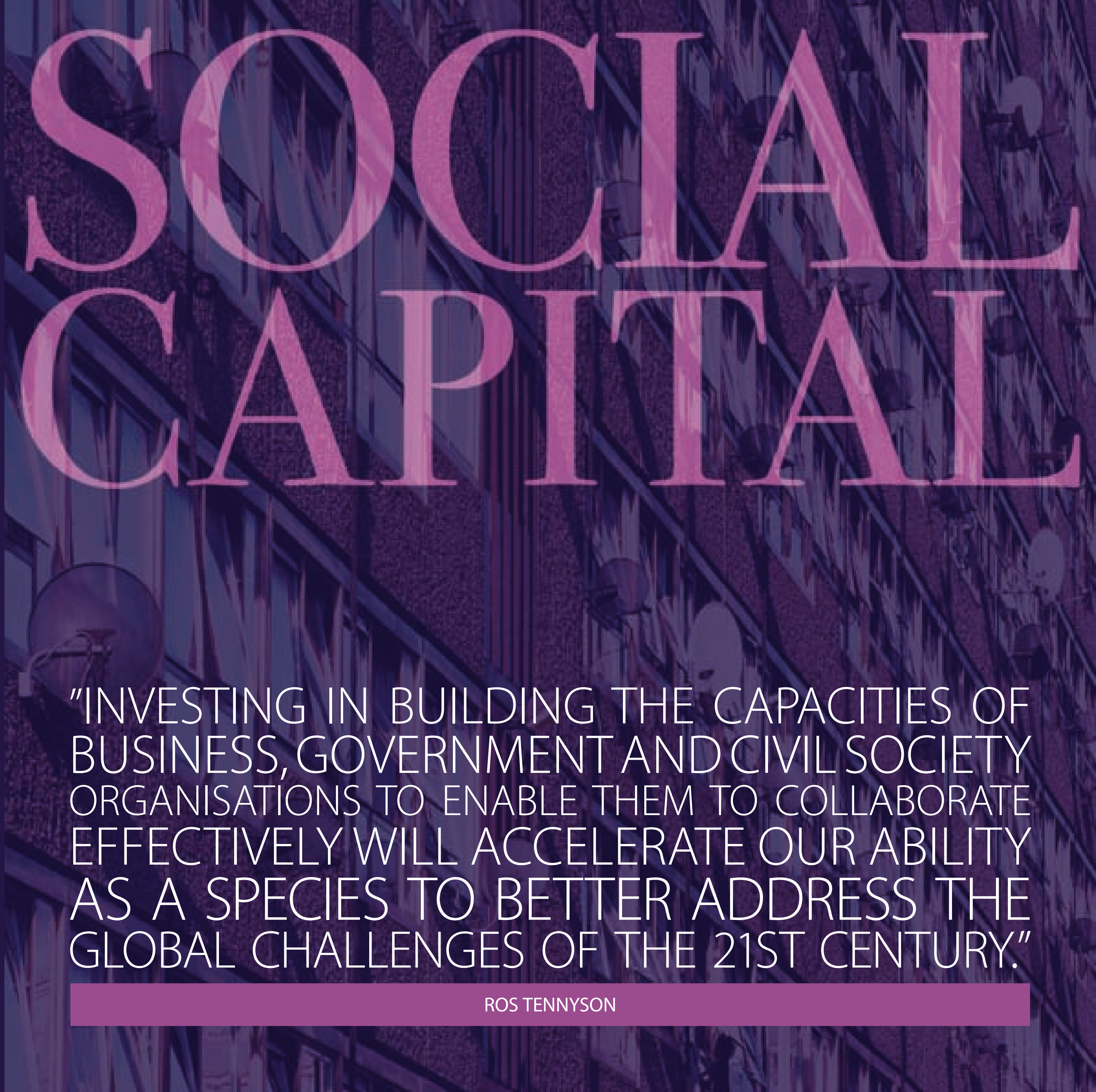

SOCIAL CAPITAL

"INVESTING IN BUILDING THE CAPACITIES OF BUSINESS, GOVERNMENT AND CIVIL SOCIETY ORGANISATIONS TO ENABLE THEM TO COLLABORATE EFFECTIVELY WILL ACCELERATE OUR ABILITY AS A SPECIES TO BETTER ADDRESS THE GLOBAL CHALLENGES OF THE 21ST CENTURY."

ROS TENNYSON

Introduction

Social – or, perhaps more accurately, societal – capital refers to the structures and processes that underpin the ways in which we as human beings live and work together.

In a rather remarkable essay, *Great Transition – The Promise and Lure of the Times Ahead*, published in 2002 by the Global Scenario Group of the Stockholm Environment Institute, a number of scenarios for future social organisation at the global level are explored. These range from the conventional – seen as either the route of market forces or policy reform – to the barbaric – seen as either catastrophic breakdown or a 'fortress world'. It quickly becomes apparent that social organisation based on any one of these premises is not a very attractive proposition.

The authors, however, explore two possible 'great transitions' for humanity. The first is eco-communalism – based on the small is beautiful philosophy and perhaps just too idealistic to be realistic. The second is a new sustainability paradigm – characterised as 'progressive social evolution based on human solidarity, new values and the art of living'.

Five years on from the publication of that essay, there is little doubt that we live in a global world characterised by not only unprecedented levels of international communication, social mobility and economic integration, but also by a significant increase in political instability, environmental degradation, pandemics, social breakdown, war and ideological extremism.

Within – and perhaps in response to – this increasingly unpredictable and turbulent context, a new type of social capital appears to be emerging that offers hope that society may be making some progress towards the Global Scenario Group's new paradigm. Built on practical, innovative and genuine cross-sector collaboration, its promise lies in shaping a new kind of economic and social development that takes into account a finite planet. This is predicated on the understanding that no single sector has adequate resource, know-how, power or legitimacy to decide or operate for all of us.

As the case studies featured in this publication demonstrate, a cross-sector collaborative approach – where risks, costs, competencies, resources and benefits are shared – promises long-term solutions to endemic problems like malnutrition as well as quick-response mechanisms to natural disasters, such as the tsunami. Beyond these responses at a programmatic level, collaborative cross-sector partnership approaches can also inform, improve and redefine the core functions of each sector making up society – whether business, government or civil society.

In a recent survey of the UN Global Compact's participating organisations (4,000 stakeholders in more than 100 countries), over 75% had engaged in cross-sector partnerships – with well over half (59%) operating at the local level, with 41% working globally *(UN Global Compact Annual Review 2007 – Partnerships for Sustainable Development pp 41–43)*. Furthermore, key reasons for partnering included:

- advocacy and awareness raising (49%);
- strategic philanthropy and social investment (56%);
- core business (54%).

Respondents also reported significant experience with at least five types of partner (for example, NGOs 70%, business 65%, academia 50%, the UN 50% and government 40%).

As we confront the challenges of living together in a global world, it appears that institutions, organisations and systems of governance that persist with the single-sector 'command-and-control' approaches so characteristic of the 20th century are becoming increasingly dysfunctional and in many cases irrelevant. New and emerging forms of social organisation based on cross-sector partnerships appear to be in the ascendancy. Investing in building the capacities of business, government and civil-society organisations to enable them to collaborate effectively will accelerate our ability to better address the global challenges of the 21st century.

Ros Tennyson
Director, The Partnering Initiative,
International Business Leaders Forum

Sustainable Communities Initiative

Partners for Change

Sustainability Issue: intensive energy use, climate change

Sustainability Response: local industry energy savings through partnerships

In the 1850s the Australian town of Castlemaine attracted national attention when a goldfield was discovered on its doorstep. Today's citizens are hoping to make national headlines again, this time by providing a model in civic action to counter climate change.

The town and surrounding Mount Alexander Shire, situated in countryside 120km north-west of Melbourne, has a population of 17,500 people. Its four biggest businesses – Mount Alexander Shire Hospital, Flowserve Pump Foundry, Victoria Carpets and KR Castlemaine, a foodstuffs manufacturer – underpin the local economy, employing close to 2,000 people. But they are also the town's biggest polluters and major culprits in overstretching the district's electricity supply; shire-wide CO_2 emissions are an estimated 238,000-290,000 tonnes per year.

In February 2008, the four businesses and a host of local and national partners launched an ambitious initiative: to identify new energy technologies and working practices which would cut the area's 2006 GHG emissions by 30% by 2010, without affecting commercial production. The Maine's Power project is jointly led by the Sustainable Communities Initiative (SCI) of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Mount Alexander Sustainability Group, an NGO set up by proactive local citizens concerned at their community's heavy dependence on fossil fuels. It is one of ten innovative collaborations between communities, local businesses, government and civil society that the SCI is developing in Australia.

Funding for the Maine's Power project is supplied by the four businesses, Mount Alexander Shire Council and two state government agencies, Sustainability Victoria and Regional Development Victoria. CSIRO is contributing experts to test workplace behaviours and alternative energy technologies. Other partners include the Department for Environment, Water, Heritage and the Arts, Australian Industries Group, Local Governments for Sustainability (ICLEI), power company Origin Energy, electricity distributor Powercor, Ricoh Australia, Westpac Bank and WWF Australia.

Meeting the target without hurting production will be a challenge. KR Castlemaine, for example, cooks and cools ham, salami and bacon in a plant that is almost entirely refrigerated. The project's initial eight-month phase will analyse the businesses' future energy needs and produce a detailed programme of energy solution options. If consensus is reached, the next stage will involve collaboration between local industry, government, SCI members and others to implement chosen solutions.

According to Sean Rooney, Director of the Sustainable Communities Initiative, energy options under consideration include wind, solar, biomass and co-generation – redirecting waste heat generated from one production process to power another. To reduce peak energy loads, the partnership is investigating workplace efficiency and behavioural change measures, which may include sequencing factory shifts.

"Participating in CPI's Postgraduate Certificate in Cross-Sector Partnership (PCCP) course provided me with in-depth understanding and practical tips on cross-sector partnering for sustainable development. I am actively applying the lessons learnt in the development and delivery of the Sustainable Communities Initiative."

Sean Rooney, Director, Sustainable Communities Initiative

"The innovation in the Maine's Power project is the collaborative process," says Rooney, holder of CPI's Postgraduate Certificate in Cross-Sector Partnership. "We are bringing together expertise, resources and passion from across government, business, NGO and research sectors and combining this with local knowledge and drive to focus everyone on collaborative solution seeking."

This very process, however, has thrown up some barriers to swift and effective action. Despite a reservoir of goodwill, the key organisations are facing challenges in overcoming cross-sector cultural issues, factoring in higher costs due to operating with a range of players, and agreeing on how to measure project outcomes.

Nevertheless, for the industry participants, the prize is worth the trouble: cost savings from using less energy, enhanced reputations from responsible business practices and a sustainable future for industry in Castlemaine.

Scaling Up

Lessons learnt in the Maine's Power project and other SCI-led civic partnership initiatives will be captured and shared with other communities around Australia. "The inter-relationships between climate change, greenhouse gas emissions, rural economies and community resilience are complex," says Sean Rooney. "The lessons SCI learns will help us to deliver working solutions on the ground."

SCI will also share lessons learned at a macro level, with businesses, policy makers and communities.

Vital Statistics:

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is Australia's national science agency. Its Sustainable Communities Initiative (SCI) fosters cross-sector collaboration with Australian communities to deliver innovative solutions to local sustainability challenges.

Holcim

Building Foundations for Society's Future

Sustainability Issue: housing poverty, disaster rehabilitation
Sustainability Response: community engagement, partnership approach

When coastal communities across Southeast and South Asia were devastated by a giant tsunami on December 26, 2004, the world responded with an unprecedented outpouring of philanthropic aid.

Among the many rehabilitation projects launched, the Holcim Fund for Reconstruction in Sri Lanka was recognised by governments and NGOs as a model of best practice, combining a speedy response, innovative community engagement and professional execution.

The tsunami killed more than 35,000 citizens of Sri Lanka and struck close to home for Holcim Lanka's 600 workers, disabling the company's cement works in Galle on the island's south coast.

Each staff member donated a week's wages to help the nation's 516,000 refugees, creating a fund which grew within weeks to US $1.2 million as contributions poured in from across the Holcim Group. To ensure transparency and accountability, the fund was set up as an entity that was independent of the company, with a Board of Custodians to oversee and approve spending and a project team to administer relief.

The company concentrated first on what it knew best, providing building materials for new homes. Working through well-established and trusted national and local NGOs and with the active involvement of community religious, business and local government leaders, the fund built 227 houses in seven stricken villages and donated cement to build 443 more. The

first permanent houses were ready within three months, while temporary shelters for victims were still under construction elsewhere.

The fund also set up a livelihoods programme to help traumatised fishermen, small-business owners and former masons who had lost everything to restart their enterprises or learn new skills. Within 14 months of the disaster, 460 families had received micro-loans to generate new income.

"This was a new, 'philanthropy plus' approach for us, one which was critical to rebuilding viable communities," says Rathika de Silva, Vice-President - Sustainable Development at Holcim Lanka and an alumnus of The Prince of Wales's Business & the Environment Programme, 2006. "Most of the victims we helped were fisher folk, traumatised by the prospect of going back to the sea, and neighbourhood traders and retailers whose shops were washed away. They saw no hope of restarting their lives. For masons, whose role in rebuilding the country was critical, we also provided motivational 'positive-thinking' sessions and the new equipment they needed to get back to work."

"The Tsunami destroyed everything. It was a nightmare I can never forget. But life has to go on and thankfully Holcim stepped in with their self-employment initiatives. These sprouting mushrooms bring me hope that tomorrow will be better than yesterday."

Chintha Vidanagamage, mushroom farming project, Epitamulla, Sri Lanka

In another example of added value, the project trained villagers in cement block manufacture and masonry skills so they could build their own new homes (with technical supervision) and receive wages and new livelihood options as part of the arrangement. Wherever possible, community craftsmen such as carpenters were also employed, keeping reconstruction money circulating in the local economy.

The entire fund was invested in communities within 14 months, an impressive achievement founded on successful partnerships, according to Rathika de Silva. "Partnerships helped us save costs, respond faster and access expertise we didn't have. For example, in the livelihoods programme we partnered with SEEDS (Sarvodaya Economic Enterprise Development Services) which had the infrastructure to provide micro-financing to villagers and the administration to provide the training required. This way Holcim Lanka didn't have to reinvent these processes and was able to facilitate more funding for livelihood support."

Replicability

When it comes to successful philanthropy plus, he cautioned, "there is no 'one plan that fits all' concept that can be used, especially in developing countries. Government administration differs, cultural situations play an important role in multi-ethnic communities and different social levels have to be taken into consideration." He suggests, however, two key lessons to apply from Holcim Lanka's success. First, focus clearly on your project's exact role in the rebuilding process; second, partner with organisations offering complementary expertise and capabilities.

Vital Statistics:

Swiss-owned Holcim manufactures, distributes and markets building materials. The company operates in over 70 countries and employs over 90,000 people. Three-quarters of its operational capacity is based in emerging markets. Holcim Lanka is the leading cement manufacturer in Sri Lanka, with 600 employees.

Easy Being Green: Or Not?

Opportunities and Risks for Carbon Entrepreneurs

Sustainability Issue: climate change, energy efficiency
Sustainability Response: consumer mobilisation

Offer householders free installation of energy-efficient bulbs and showerheads and they'll turn into low carbon consumers overnight. At least that's the lesson of aptly-named Australian start-up Easy Being Green (EBG), which in less than two years grew to turn over US$30 million and employ 240 people.

The company became one of Australia's fastest growing enterprises by taking advantage of the New South Wales State Greenhouse Gas Abatement Scheme which, uniquely among carbon trading schemes, allows domestic energy efficiency to generate carbon credits. EBG invested in large quantities of compact fluorescent light bulbs and low-flow showerheads and installed them for free in return for householders signing over the resulting carbon credits. The company then sold the credits to power utilities obligated to meet CO_2 targets by the NSW government and used the income to buy equipment and pay employees.

"There were no subsidies involved. Our entire income stream was carbon credits sold into a commercial market," says Paul Gilding, a member of the faculty on a number of CPI programmes, and until recently CEO of Ecos Corporation.

Using marketing campaigns, including local schools and media, to target rural communities and suburbs across New South Wales, the company averaged more than 50% take-up in target areas. By September 2007, its teams had distributed and installed nearly four million bulbs and more than 400,000 showerheads in 630,000 homes and prevented the release of 4.3 million tonnes of carbon dioxide emissions.

"We persuaded people to act in their own self-interest and to save on their bills," Paul Gilding explained of the phenomenal take-up rate. "They got a very good deal, but they were also being educated about personal impacts on climate change and how carbon trading works." Although climate change is finally making the front pages in Australia, many people remain unaware of the relationship between turning on a light or using hot water and polluting the atmosphere, he says. "Once they learn, they want to act. Surveys of our customers showed that our installations often led to them taking more action in the home."

Easy Being Green's story, however, also reflects the risks associated with being in the vanguard of low carbon entrepreneurship. In September 2007, the company was forced to suspend operations and lay off its employees after the price of carbon plunged from twelve to under five Australian dollars per tonne. Half a dozen similar businesses also closed down or dramatically scaled down operations.

The main driver for the price collapse was uncertainty over the future of the New South Wales scheme, as the Australian government is planning a federal counterpart. The NSW government had also set a $16 price cap on the cost of carbon, to protect high fossil fuel users such as utilities, but had failed to set a bottom market price, leaving carbon credit dealers such as EBG unprotected.

"Although climate change is finally making the front pages, many people remain unaware of the relationship between turning on a light or using hot water and polluting the atmosphere."

Paul Gilding, Faculty, The Prince of Wales's Business & the Environment Programme (BEP)

Undaunted, Paul Gilding is convinced such a business can still work. His strategy for doing so is two-pronged. First, find buyers of the carbon credits at a guaranteed price upfront. Second, diversify into other products to sell direct to consumers, including solar hot-water heating systems.

Easy Being Green went into Voluntary Administration and the company was sold in January 2008 to listed Australian green energy retailer Jackgreen. Jackgreen is pursuing the Easy Being Green strategy while also linking the consumer offer of energy efficiency to sales of green energy.

Replicability

There are clear lessons to be drawn, both positive and negative, from Easy Being Green's experience.

EBG's business model would be replicable, in principle, in any country or region that includes energy efficiency savings in carbon credit schemes. But to encourage such innovation and entrepreneurship, says Gilding, regulators must give energy efficiency a central economic policy role and provide some security against price collapse if they want entrepreneurs to enter the market. "We have proved that there is a straightforward way to fight climate change by making massive energy efficiency savings in the home very quickly and efficiently. It is up to governments to design the regulations to make it work."

Vital Statistics:

Easy Being Green was owned by the Ecos Corporation, a leading Australian sustainability strategy consultancy, in order to facilitate personal householder action on climate change. EBG was temporarily suspended in September 2007 when the carbon price collapsed and the company was sold to listed green energy company Jackgreen.

The Coca-Cola Company

Partners for Change

Sustainability Issue: water poverty, hygiene
Sustainability Response: education, partnerships

Thirteen-year-old Jacqueline Apiyo used to miss school constantly due to the crippling effects of diarrhoea, cholera and typhoid. "We were drinking river and well water which was untreated," she explains matter-of-factly. "I was always vomiting, shivering. I didn't have any appetite." Today, thanks to an innovative school-based water purification and hygiene education programme, Jacqueline (pictured overleaf) is a regular attendee at Kasimba Primary School in Nyanza Province, western Kenya. "Now everybody in our house has safe water and nobody is complaining about typhoid any more," she says with a broad smile.

According to UNICEF, more than half the world's schools lack clean toilets and drinking water, contributing to the waterborne diseases that take two million lives a year, 90% of them children. For young girls, this deprivation also translates into life-long losses in education and economic opportunity as female school attendance drops dramatically when clean, safe toilets are unavailable.

Kenya is among the hardest hit countries, with more than half the rural population living without safe water supplies. Schools breed disease due to lack of latrines, inadequate water supplies and water storage in containers that are easy to contaminate by hand.

In 2006, The Coca-Cola Company's East and Central Africa Division supported a pioneering effort in Nyanza Province to reduce diarrhoeal diseases and improve pupil attendance by implementing the Safe Water System developed jointly by the World Health Organisation, US Centers for Disease Control and Prevention and Pan American Health Organisation. The pilot project in 45 public primary schools was implemented by development charity CARE. As well as funding, The Coca-Cola Company provided project strategy development and technical expertise; supported development and production of new bottle moulds for WaterGuard, the locally manufactured chlorine disinfectant; and acted as liaison to the provincial and national water, health and education ministries.

Two teachers in each school were shown how to treat water with chlorine-based disinfectant, store the water safely and promote proper handwashing practices. They then formed safe water clubs for pupils, instructing them in water purification and hygiene techniques and encouraging them to pass the message on to parents. Each school also received locally made clay pots, modified for safe storage with a narrow mouth, lid and spigot, disinfectant solution, soap and hand-washing water tanks.

In less than a year, an estimated 12,250 students were receiving treated water and nine in ten schools were storing treated supplies in safe containers. The impact on attendance was impressive, with absenteeism falling by 29%. Children also took the message home, with an estimated 1,258 families of pupils in targeted schools becoming WaterGuard users during the project's duration.

"We were drinking river and well water which was untreated. I was always vomiting, shivering. I didn't have any appetite. Now everyone in our house has safe water and nobody is complaining about typhoid any more."
Jacqueline Apiyo, Nyanza Province, western Kenya

Scaling Up
The Coca-Cola Company also funded an in-depth expert evaluation of the project by Emory University in Atlanta and the US Centers for Disease Control and Prevention.

This enabled the company and its partners to promote schools-based safe water programmes to government officials and international donors. As a result, CARE is implementing a scaled up programme, SWASH+, which will cover 1,500 schools throughout Nyanza Province, funded by the Bill and Melinda Gates Foundation and the Global Water Challenge (GWC). The Coca-Cola Company is a founding member of the GWC, a coalition of leading cross-sector organisations joining forces to catalyse transformational change in the water and sanitation sector.

"We have more than 125 community water stewardship projects in 50 countries and the Kenya programme exemplifies our approach of seeding initiatives that can be sustained by communities and scaled by other agencies," says Karen Flanders, The Coca-Cola Company's director of Corporate Responsibility and member of The Prince of Wales's Business & the Environment Programme core faculty.

"We also try to bring added value beyond philanthropy. In Kenya, our public affairs and communications team were actively involved in promoting the project to a wide audience including Kenyan ministries, potential donors and, through a video, an internal audience of Coca-Cola managers."

Vital Statistics:
The Coca-Cola Company is the world's largest beverage company, operating in more than 200 countries. It has 55,000 employees and is the biggest private-sector employer in Africa.

ENGAGING WITH CPI

South African Scenarios for a Sustainable Future: an Inter-Generational seminar

The South African office of CPI, based in Cape Town, ran two three-day Inter-Generational seminars in 2007, in March and July, to explore issues of leadership. In each case the participants were a roughly equal mixture of executive alumni of our programmes and graduates of the local 'Brightest Young Minds' programme, which annually brings together 100 of the smartest and most public-spirited final year students from universities across South Africa.

The objective of the seminars was to immerse participants in the latest thinking on climate change and other system pressures and then create some formal scenarios for how South Africa might develop over the next twenty years. These were presented by the groups that created them, usually in dramatised and very entertaining ways. The final stage, however, liberated participants from the constraints of scenarios by asking 'What future would we like to create?' This led to a great deal of productive discussion and brainstorming, with a number of practical ideas starting to take shape by the time the seminar wound to a close.

The energy sparked by the encounter between the generations was a lively feature of both seminars and is an interaction that may be used again in the future. We have heard many pieces of news from alumni and the Brightest Young Minds who attended the seminars and we are delighted that four of the alumni now work with CPI in South Africa. One alumnus, then a CEO and now retired, realised at the seminar that the future needed to be a socially integrated one. He started a male voice choir, which is locally quite unusual, with a mixture of young men from the townships and older, mainly retired white guys from the suburbs. It is now a thriving group of over 45 members, and is already mounting concerts.

ENGAGING WITH CPI

The Chevening Fellowship Programme

The Chevening Fellowship Programme on the Economics of Climate Change, sponsored by the Foreign and Commonwealth Office (FCO) and organised by the British Council, ran for the first time at Wolfson College, Cambridge in 2008.

The Chevening Fellowship Programmes are the FCO's most significant scholarship programmes worldwide. Scholars in the UK attend one of a number of courses, the objectives of which are to build the capabilities of future leaders in order to support policy-making decisions. Following the publication of the Stern Review, the FCO identified the need for a Fellowship course on the Economics of Climate Change. This course aims to support the development of leadership skills in people who will influence negotiations and deliver on the outcomes at a national and local level in subsequent years.

Twelve senior international Fellows, all of whom have responsibility for advising their governments on climate change policy, were selected by the FCO and attended the course in Cambridge from January to April. Coming from Brazil, Canada, China, Indonesia, Kenya, Mexico, Russia, South Africa, Taiwan, USA and Vietnam, the Fellows learned from each other's perspectives as well as from the academics and practitioners who contributed to the programme. Topics covered aspects of environmental economics, climate change science and projected impacts, mitigation, adaptation, stakeholder engagement and policy choices. Options for action that were discussed included initiatives such as Reduction of Emissions through Deforestation and the Clean Development Mechanism, as well as investment for sustainability and action at international, national, local and community level. Visits to the European Parliament and Commission, the Met Office Hadley Centre, BedZED Eco Village and the Tyndall Centre complemented the lecture-based sessions and workshops.

The University of Cambridge Programme for Industry developed the programme in association with Chatham House and the Tyndall Centre for Climate Research. The course is scheduled to run for a further four years, offering an opportunity for the Programme to have a wide impact at a strategic level.

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FINANCIAL CAPITAL

"IT IS BECOMING ESSENTIAL FOR A FINANCIAL INSTITUTION TO UNDERSTAND THE REPUTATION AND CREDIT RISKS ASSOCIATED WITH ENVIRONMENTAL AND SOCIAL ISSUES, AND IT IS BECOMING MORE REWARDING TO DEPLOY CAPITAL INTO ENVIRONMENTALLY SUPERIOR INVESTMENTS, PARTICULARLY CLEAN TECHNOLOGY."

MATTHEW ARNOLD

Introduction

The financial services industry across the world is increasing the attention it pays to environmental and social issues. More than 50 banks have signed the Equator Principles, an environmental and social risk standard. Investors within banks, pension funds, private equity groups and real estate investment funds are looking for clean, green, sustainable investments. Banks are lobbying governments on climate change, creating markets for carbon, financing sustainable forestry and so on.

Globally, thousands of people inside financial institutions are working to protect the environment, safeguard human rights – and make commercial returns on their investments. In four years, the sustainability agenda has moved from a side show to one of the main events. As these initiatives take hold, they are beginning to alter the competitive landscape. Consumers have responded to activist campaigns targeted at some of the firms; new products and investment opportunities are emerging; and industrial clients are responding differently to the new risk management procedures. It is becoming essential for a financial institution to understand the reputation and credit risks associated with environmental and social issues, and it is becoming more rewarding to deploy capital into environmentally superior investments, particularly clean technology.

Over the past five years, CPI has had the opportunity to work with dozens of financial institutions, supporting and participating in the integration of environmental and social thinking into their business. These increasingly sustainable banks, insurers and other financial service companies have top-level support for sustainability and strong teams well-educated about the risks and opportunities. They are not afraid to have difficult discussions with clients and have the capital to invest in emerging environmental markets.

Most banks initially approach environmental and social issues from a risk management perspective; hence the attraction of the Equator Principles. The risks that these policies address are often significant operational or headline matters that can degrade credit quality and lead to public opposition, loss of access to resources or operating permits, government intervention or, in extreme cases, criminal charges. Learning to identify these risks, engage in a dialogue with the client and other stakeholders and develop solutions is not that difficult. It just takes focus and will. The policies work best when positioned as a

client-service offering, rather than a policy-compliance requirement. The role of the environmental and social risk managers is to try to make sure a deal gets done and is not slowed down and layered with unreasonable requests.

Once the risk management agenda is under control, however, many firms see business opportunities in environmental markets. As the first banks were taking steps to develop sustainability commitments, business opportunities received much less attention than risk management. Since 2004, things have moved on and a number of large banks including ABN AMRO (which has contributed one of the case studies that follow), have made increasingly large commitments to investing in sustainable development, carbon markets and climate change.

The ClimateWise principles, developed by a working group that included the Association of British Insurers and The Prince of Wales's Business & the Environment Programme, represent another encouraging initiative by the finance sector to tackle the challenge of climate change and encourage more climate-friendly customer behaviour.

Another approach from Swiss Re demonstrates how an investment in its employees can help a company put sustainability principles into action within its own organisation. Financial initiatives are not, however, the exclusive province of the financial services sector, and the case study from Bremen shows how investment in renewable energy can bring about economic regeneration.

Matthew Arnold
Founding Partner, Sustainable Finance

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ABN AMRO

Financing a Low Carbon Future

Sustainability Issue: developing a low carbon economy
Sustainability Response: innovative financing

Carbon-conscious European investors have a growing array of products to choose from in the fast growing world of eco-finance. But few can compete with the feel-good factor of the newly launched World Bank Eco 3 Plus Note, which not only finances the growth of clean energy companies, but whose proceeds are used to fund sustainable projects in developing countries.

The innovative offering is a joint initiative with ABN AMRO, which approached World Bank Executive Director Herman Wijffels with the concept. Investors are guaranteed a minimum 3% return and the investments made are linked to ABN AMRO's Climate Change & Environment Index (CCEI), a portfolio of 30 companies whose products and services combat climate change.

The Eco Note is part of a comprehensive portfolio of eco-financing activities developed by ABN AMRO under the umbrella of its global Eco Markets unit and unique among investment banks. These include helping client companies to trade and offset their carbon emissions; raising finance for low carbon industries such as renewable energy and sustainable construction; and developing eco-investment products for sustainability-minded private citizens in the EU, US and Asia.

The bank's new emphasis on eco-financing represents a shift in how it presents sustainability issues to clients – from risk management to profit opportunity. "We are regarded by many as a leader on sustainability issues. The aim is to leverage that influence in pursuit of new markets," explains Charles Longden, Global Head of Credit Trading and Eco Markets.

While eco-finance products are currently a small percentage of the bank's business, their rates of growth and return are impressive against a backdrop of international policymaking aiming to counter climate change and foster clean development. The popular Climate Change and Environment Index is a good example; backtesting demonstrated that its portfolio has outperformed the general stock market by almost 200% since 2001. In one year, ABN AMRO has raised 150m euros of investment in the CCEI, including 20m euros from employees. Its companion Water Index, which invests in companies that will provide infrastructure, treatment and delivery services in an increasingly water-constrained world, is also producing high returns.

"It's a virtuous circle," says Richard Burrett, a member of the faculty of CPI's Climate Leadership Programme and The Prince of Wales's Business & the Environment Programme and until 2008, ABN AMRO's Head of Sustainability. "Clients get to do good while benefiting from a hard-nosed commercial investment."

Based on the same logic, ABN AMRO is also the major shareholder in Low Carbon Accelerator, an incubator fund which invests in fledgling UK, European and US businesses in the clean energy, cleaner fuels, energy efficiency and sustainable building sectors. Examples include

"Put your dollars where your values are; the investor community has a crucial role to play in sustainable development and solving the climate crisis."
Former US Vice President, Al Gore

companies developing a new generation of solar cells and turbines for use on landfill sites burning methane to produce electricity. Another is Sterling Planet, the leading US retail provider of solar, wind and other clean renewable energy supplies, whose sales to date have saved CO_2 emissions equivalent to taking a billion cars off American roads for a year.

Replicability

According to the Stern Review, markets for low carbon technologies could be worth $US 500bn by 2050. Yet convincing investors of its worth remains a challenge to banks in the eco-finance vanguard. "There is still scepticism out there about whether to invest in some of these issues," says Richard Burrett. "It took time to persuade some of our own board members."

Leadership support for mainstreaming sustainability initiatives into the bank's core business was critical to getting the Eco Markets unit off the ground, he added. Another lesson was that promoting eco markets has helped enhance the bank's reputation and employee and customer loyalty. As former US Vice President Al Gore recently urged ABN AMRO clients in a closed-door session: "Put your dollars where your values are; the investor community has a crucial role to play in sustainable development and solving the climate crisis."

Vital Statistics:

ABN AMRO is a leading international bank with a Netherlands head office and more than 4,500 branches in 53 countries. It employs the equivalent of 105,000 full-time staff. In September 2007, the bank was acquired by a consortium of Royal Bank of Scotland, Santander and Fortis.

Bremen Initiative
Winds of Change

Sustainability Issue: energy and climate
Sustainability Response: renewables-led economic regeneration

A few short years ago the harbour city of Bremerhaven on the North Sea was characterised by dying industries and soaring unemployment. Today it is undergoing an economic renaissance as a global leader in renewable (wind) energy production, research and development. Rita Kellner-Stoll, Head of the Department of Environmental Economics, Climate and Resource Protection for the Free Hanseatic City of Bremen, and an alumna of The Prince of Wales's Business & the Environment Programme, played a key role and takes up the story.

"My team and I came up with the idea of developing a wind industry in Bremerhaven in 2002. The local fishing and shipping industries were in decline and we were looking at how to use the workforce's traditional skills in a future-based industry. It was a logical connection as it takes a lot of competence to create wind farms in rough seas and we had that expertise in our community.

At the time, offshore wind energy was not at the top of the environmental or regeneration agendas in Germany or elsewhere in Europe and we realised that we could leapfrog the competition if we prepared in a very coordinated way.

The first step was to present a political strategy to the Bremen Senate outlining all the elements – economic development, technology research and development, skills training, environmental protection – needed to successfully develop a regional wind industry. This was approved in 2003.

The second key step was networking. My department set up a Wind Energy Agency (http://www.windenergie-agentur.de/english/) which recruited existing companies and research institutes that could turn their skills to developing a wind industry. With a budget of several million euros – half from the EU and half from the Bremen government – we then identified and funded the research and technology needed to get the industry off the ground. For example, we provided subsidies to offshore companies to solve corrosion and other component problems for the giant windmills they were designing. We also offered prime dockside rental locations in Bremerhaven harbour.

We got all these players thinking innovatively and working as a community and the result was astonishingly fast progress. Now in 2008, the agency has 160 members from across north-west Germany, representing an industry that provides hundreds of new jobs. Many are new or reconfigured companies, such as former shipyards now building windmill towers. They include Multibrid and REpower Systems – two of only three companies worldwide that make 5MW windmills for offshore use.

In 2008, five examples of a new generation of 5MW turbines are being trialled onshore in Bremerhaven, with the electricity fed into the national grid. These include structures with innovative tripod and jacket foundations which

"We acted as an enabling agency, stimulating cooperation and engagement on developing a new, sustainable industry. This is also what the The Prince of Wales's Business & the Environment Programme (BEP) does and my BEP experience certainly influenced my future-oriented approach."

Rita Kellner-Stoll, Head of the Department of Environmental Economics, Climate and Resource Protection, Free Hanseatic City of Bremen

will reach 40m in depth and operate 50km offshore. When these wind parks are finished they will operate like giant power stations.

Scaling Up

Our vision is that the north-west region of Europe will become the production line for the global offshore wind industry. By 2011-2, we expect 2,000 MW of wind energy to be generated off Bremerhaven from contracts that have already been signed. After then we hope to build 1,000 MW per year in Bremerhaven. Already, two windmills built here are being piloted off the Scottish coast and six others will leave Bremerhaven in the summer of 2008 for the testing field Alpha Ventus in the deep North Sea. This will be the kick-off for this whole industrial sector.

In addition to plant and production development, one other element is key: applied environmental research. Industry and scientific organisations need to cooperate closely from the very beginning to solve problems that are technological but also in the end global.

In 2008 one of the world's most powerful wind-tunnel centres has set up operation in Bremerhaven, offering speeds up to 250 km/h for testing purposes, for example to test the aerodynamics of rotorblades. Additionally one of Germany's most important research societies, the Fraunhofer Gesellschaft, is constructing a Center for Wind Energy and Maritime Technology that will offer simulation facilities and test beds for rotorblades up to 90m length.

My advice to other regional development agencies looking to develop sustainable industries would be to work out what is your strength. Take into account the area's climate and circumstances as well as the future drivers of environmental development and needs and see what sectors and skills can be transformed from the past into the future. Developing strong partnerships is also critical to success."

Installation of a giant 5MW wind turbine on an innovative tripod base in Bremerhaven

Vital Statistics:

The Free Hanseatic City of Bremen, the smallest of Germany's federal states, is composed of two cities, Bremen and Bremerhaven, with a combined population of 680,000.

4.3

Swiss Re

Underwriting Low Carbon Lifestyles

Sustainability Issue: energy and climate

Sustainability Response: innovative employee engagement

Since January 2007, employees of reinsurance giant Swiss Re have been offered a highly unusual perk: up to 5,000 Swiss francs towards a major personal purchase, such as a new car, fridge or washing machine. There is only one condition. The product must be selected from a menu of climate-friendly choices including hybrid or electric vehicles, top-of-the-range energy efficient appliances and solar panels.

The innovative initiative was put together by Swiss Re's sustainability team at the request of CEO Jacques Aigrain. "Climate change is a topic of strategic importance to Swiss Re. Our CEO felt that while Swiss Re was very much engaged externally, this could be strengthened internally. He came up with the idea of subsidising hybrid cars and our managers around the world suggested expanding beyond green vehicles to a portfolio of investments," explains Britta Rendlen who oversees the COYou2 Reduce and Gain Programme from Zurich.

While most large companies are taking measures to reduce their corporate carbon footprints, few involve their employees in actions beyond the workplace and fewer still offer incentives to do so. Swiss Re's initiative, unique in its scope and scale, has created a company-wide buzz, which has been built on through climate change information events, energy fairs, and 'lunch and learn' sessions, organised across the globe.

All employees of at least two years' standing are eligible, but must personally invest at least 1,000 Swiss francs in the purchase. The company will contribute up to half an approved product's purchase price until December 31 2011, donating up to a maximum of 5,000 Swiss francs per employee over the period.

Seven investments are on offer to staff working in 25 countries. They vary according to region, based on availability and suitability to local conditions and were selected on the advice of local environmental managers. In Switzerland, for example, choices include efficient wood-based heating systems and nationwide annual public transport passes, which cover the use of trains, boats, trams and cable cars. In Mexico, they include solar panels and energy-efficient

“Engaging our employees in this way was innovative, but it was also an obvious next step for us. Climate change is one of the key long-term risk management issues identified by Swiss Re. We had committed to making our operations greenhouse gas neutral by 2013 but we achieved this ahead of schedule by the end of 2007.”

Mark Way, Director, Sustainable Development Americas, Swiss Re

appliances and in India, electric cars and motorcycles and rainwater collection tanks. Fuel-efficient hybrid or gas-powered cars are offered worldwide.

Mark Way, an alumnus of CPI’s Postgraduate Certificate in Sustainable Business programme, is Director, Sustainable Development Americas of the Group’s Sustainability and Emerging Risk Management department, which oversees COYou2’s implementation. “Engaging our employees in this way was innovative, but it was also an obvious next step for us. Climate change is one of the key long-term risk management issues identified by Swiss Re. We had committed to making our operations greenhouse gas neutral by 2013 but we achieved this ahead of schedule by the end of 2007. COYou2 makes that commitment more tangible for our employees.”

So tangible, in fact, that during the first 12 months more than 4% of employees had already taken up the offer. Some were especially enthusiastic. New York-based senior manager Daniel Rahm, pictured on the previous page, bought a hybrid and added a personalised licence plate which reads COYou2.

Replicability

Other corporations, including Cisco Systems, have shown interest in following Swiss Re’s initiative. “There’s a fair amount of money involved; but we believe it is money well spent”, comments Mark Way. “The administration of the programme is also significant and needs to be well organised. We rolled it out through our internal environmental management and human resources departments around the world and that has worked well.”

As for payback? “In terms of employee engagement and helping us walk the talk on climate change, it’s been very worthwhile.”

Vital Statistics:

Swiss Re is the world’s largest reinsurance company, operating in over 25 countries with roughly 11,000 employees.

ClimateWise
Insuring the Future

Sustainability Issue: climate change, environmental risk
Sustainability Response: sectoral cooperation, knowledge-sharing

The insurance industry is at the sharp end of the economic impacts caused by a warming world. Already, extreme weather events are becoming more frequent and costly. In 2007, summer flooding across the UK caused $6 billion worth of damage. In the United States the continuing financial impact of 2005's Hurricane Katrina has reached US$81.2 billion.

Insurers not only have a clear vested interest in helping societies adapt to climate change, but, with decades of expertise in analysing weather patterns, they are ideally placed to take a lead in helping customers reduce their risks from flooding, wind damage and other climate-related impacts.

Recognising this, 39 leading insurance organisations have joined an initiative aimed at coordinating action on climate change across the industry.

Launched in September 2007, the ClimateWise principles show the commitment of member companies to take a lead in analysing climate-related risks; support climate awareness among customers; incorporate climate change into investment strategies; inform public policy debate; and reduce the carbon footprint of their business operations. Signatories also agree to report back annually on how they are honouring these commitments.

The initiative evolved rapidly, following a meeting of ten insurance company chairmen and chief executives convened by The Prince of Wales in late 2006 to explore how the industry could act in concert to counter climate change. The meeting involved the Association of British Insurers (ABI), Lloyd's, and several other leading insurers, and proposed an industry-wide set of principles to enable companies to pool their knowledge and increase the impact of their individual efforts.

A working group of company representatives and the Cambridge Programme for Industry – representing a group of The Prince of Wales's charities – negotiated six draft principles that were approved by each company's board of directors in June 2007. Over the next few months, ABI and Lloyd's recruited 28 more signatories, 19 of them Lloyd's syndicates operating around the world.

According to working group member Trevor Maynard, Lloyd's Manager of Emerging Risks, the involvement of senior management was critical to getting swift agreement on an industry-wide framework. "We were able to interact with senior people at key points in the process, which was very useful for getting over hurdles," he explained. "For example, traditionally it has been an industry maxim that the investment arm be left alone to maximise returns. We needed to educate people that this was an opportunity to strengthen investment strategies not compromise them."

Among the concrete results likely to emerge from ClimateWise is a growth in housing insurance services tailored specifically at reducing climate risks. "Fifty thousand pounds

"Time is a luxury we do not have and I urge companies both at home and internationally to sign the ClimateWise principles and take the necessary action."
HRH The Prince of Wales

was a typical claim for flood damage in 2007," says Maynard. "A lot of that cost can be avoided by advising householders at risk on how to make their homes more climate-proof, for example by using flood-resilient plaster board and moving wiring higher above the floor. Insurers are providing advice on these issues."

Lloyd's, which operates in over 200 countries, is leading the way in implementing the ClimateWise principles. It has produced a detailed report of the Corporation's climate-related impacts and activities, and has launched the 360 Risk Project, which analyses emerging risks such as climate change. Some of these activities include: public discussion of the subject championed by Lord Levene and other Lloyd's representatives; sharing of research; work on managing its own carbon footprint; and announcing plans to appoint a voting overlay manager for central fund equity investments.

Scaling Up

Many household name insurers, including AIG, Legal and General, Standard Life, AXA UK and Prudential have already joined ClimateWise. Others are expected to do so as the new initiative becomes better known and the ABI and existing members continue their outreach and recruitment efforts. At the initiative's launch, The Prince of Wales also expressed his hope that it would quickly become global: "Time is a luxury we do not have and I urge companies both at home and internationally to sign the ClimateWise principles and take the necessary action."

Vital Statistics:

The ClimateWise principles have been adopted by 39 insurers, reinsurers and brokers to enable the industry to build action on climate change into its business operations. They were developed with a group of The Prince of Wales's charities, including The Prince of Wales's Business & the Environment Programme.

ENGAGING WITH CPI

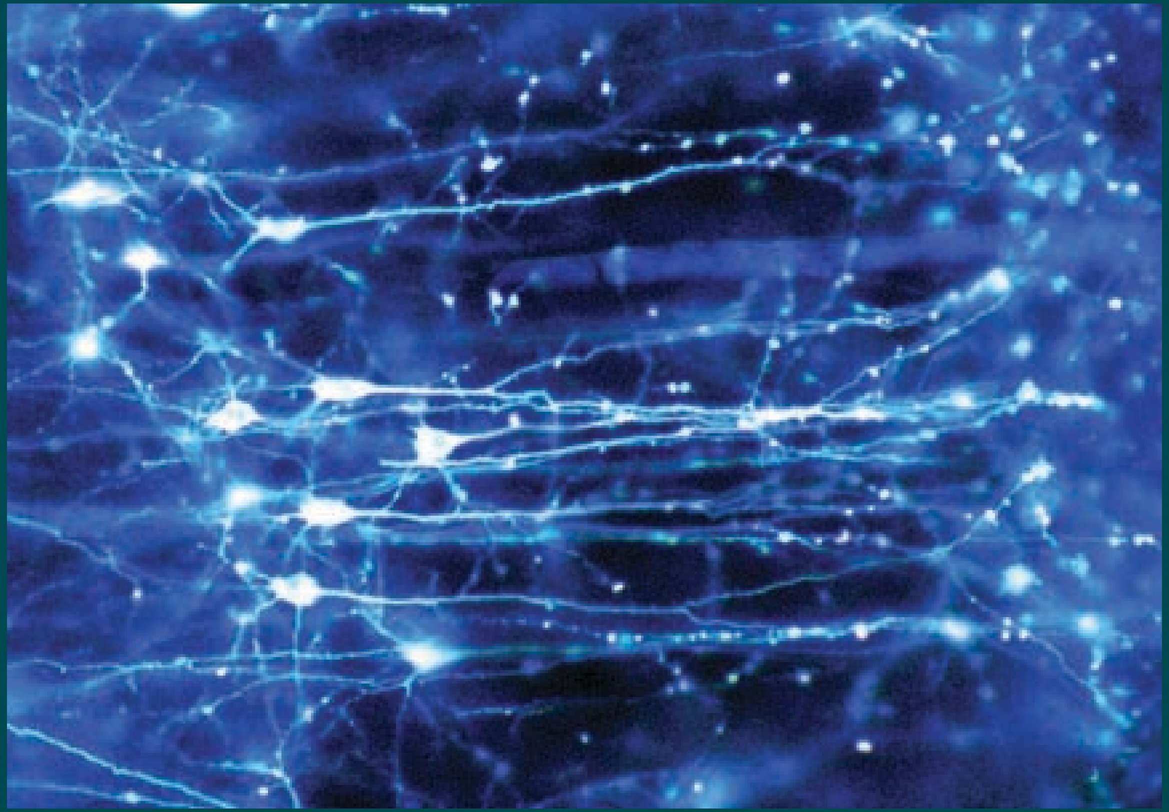
Transformational Change Model

CPI is working with its worldwide alumni network of leaders from business, government, and civil society to address one of the most pressing and yet unresolved issues of our time: the requirement to develop a genuinely low carbon economy which reduces the risk of serious social, environmental and economic impacts across the world. Although, as this publication demonstrates, there is encouraging work being done by many individual companies, business leaders observe the lack of clear frameworks that would support them in reaching the objective of a low carbon economy.

The idea for a Transformational Change Model (TCM) has been enthusiastically debated through workshops within programmes such as The Prince of Wales's Business & Environment Programme and CPI's Climate Leadership Programme as well as via extensive consultation with government, academics, civil society and CPI's alumni network. This work also builds on the perspective of leaders' groups such as The Prince of Wales's Corporate Leaders Group on Climate Change and the P8 Group of pension funds. It will involve issues such as embedding climate risk into decision-making processes, developing a global carbon price, scaling up investment and innovation in low carbon technologies and finding a fair way to allocate the costs of adaptation between developed and developing countries. A shift from short term decision-making to long-term sustainable growth is essential in developing a real solution to the climate problem; at present the tendency is for increasingly short-term thinking to become the norm. Long-term strategic growth plans, involving partnerships between companies and long term investors (such as pension funds) are needed, as well as government tools that will permit the development of the corresponding economic frameworks.

The CPI vision of transformational change will be continuously updated through regular reviews via CPI programmes and alumni activities. The vision is not intended to be a definitive answer or a consensus view from the business community, nor is it simply a theoretical framework for analysis. Rather, it will be a practical proposal for action by leaders from all parts of society, especially the business community. When complete, it will present a set of principles governing policy-making that we hope will enable change to occur in the business sector.

Neurons in the brain



ENGAGING WITH CPI

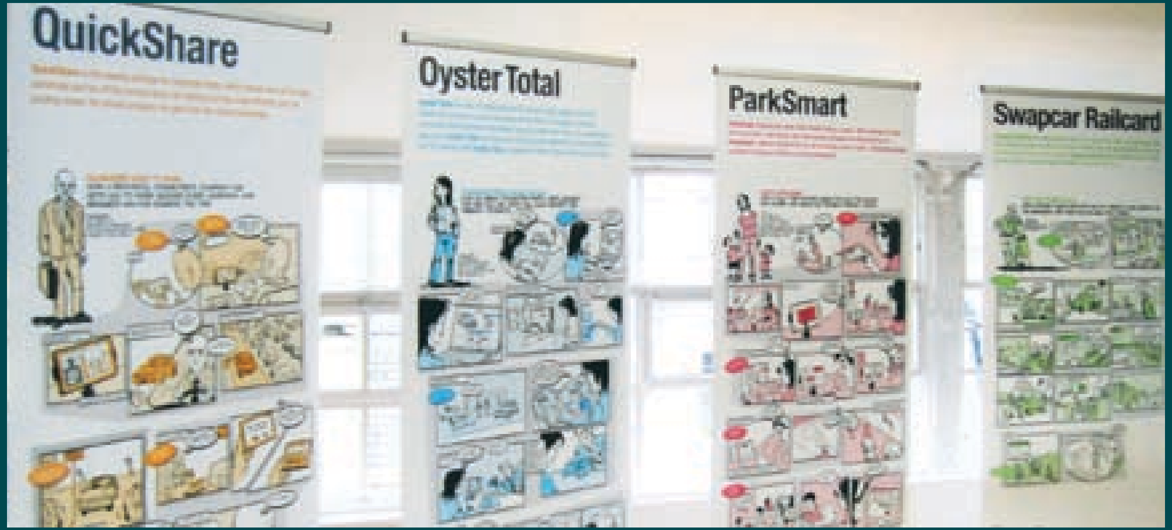
Business Taskforce on Sustainable Consumption & Production (SCP)

The Business Taskforce was convened by the UK Department for Environment, Food & Rural Affairs (Defra) and the Department for Business, Enterprise and Regulatory Reform (BERR) in 2006, in order to provide practical proposals that would enable companies to move to more sustainable patterns of consumption and production in ways that boost competitiveness and contribute to economic growth. The Taskforce was led by a Steering Group chaired by Neil Carson, CEO of Johnson Matthey plc, and the Secretariat was convened by CPI.

A series of workstreams were scoped out, each addressing a different SCP theme from a business perspective. The workstreams included one on Decentralised Energy, led by Peter Jones, Biffa Waste Services; one on Personal Mobility ('Mobility 2020'), led by Dr Stewart Davies from the Sustainable Development Commission; and one on Global Business, led by Gordon Shields, Shields Environmental. The workgroups involved a wide range of business, government and NGO representatives in discussions and workshops. Their conclusions provide the basis for business to take ownership of a number of new SCP projects in the future.

The Taskforce concluded its programme in March 2008 with a meeting at the Science Museum in London attended by senior business leaders, NGO representatives and government officials from Defra and BERR. The scale and importance of the opportunities were exemplified in the proposals which the Taskforce launched and in its challenge to the Government. "The UK has signed up for legally binding targets on climate change which will require the biggest transformation in the economy since the industrial revolution," said Neil Carson. "Business has backed the UK Government's leadership on carbon reduction. Now it's time for Government to give business the encouragement and support it is asking for to help it bring forward technology and change consumption in ways that radically cut emissions and waste."

The Taskforce called specifically for action to make decentralised energy an important part of the UK energy mix, since it felt that this has a vital role to play in helping to fill the energy gap, in promoting higher levels of resource and carbon efficiency, and in creating markets for new technologies and services. In the area of personal mobility, the Taskforce looked at the steps that can be taken to bring about a behaviour shift in favour of low carbon mobility. This could be achieved, the Taskforce said, by creating a radically new market for mobility-related products and services over the next 5–10 years, linked to clear standards for green vehicles.



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"BUSINESSES ARE ADDRESSING THE SIMPLE RESOURCE EFFICIENCY ISSUES THAT WILL START TO BRING DOWN CO_2 PRODUCED PER UNIT OF OUTPUT; BUT, MORE IMPORTANTLY, THEY HAVE REALISED THAT LEGISLATION WILL INCREASINGLY CREATE NEW MARKETS FOR NEW PRODUCTS AND TECHNOLOGIES."

NEIL CARSON

Introduction

Climate change has been described by several politicians as the 'biggest challenge of our generation'. Scientists have made it clear that to stabilise rising global temperatures, we need to cut our CO_2 emissions by more than 50% in a generation and discussion of how to achieve this is high on the global political agenda.

The industrial revolution of the 19th century is largely held responsible for initiating the dangerous rises in atmospheric CO_2. Manufacturing businesses and their supply chains are still considered to be one of the greatest sources of 'human' CO_2 that needs to be slashed. It is, however, imperative to government and business that this happens without any short-term negative impact on the economy and fear of this has led to a great deal of inaction.

The recent Stern Report called the lack of global progress in addressing climate change 'the greatest market failure the world has seen'. It also warned that continued inaction could result in the loss of up to 20% of global GDP (equivalent to the two World Wars and the Great Depression combined), whilst action now might cost just 1–2% of global GDP.

As a result, politicians are now taking seriously the need to set binding targets for CO_2 reductions between now and 2050 and developing local legislation that will require industry to play a large part in achieving them.

Some traditional industries are still fighting this, but for an increasing band of enlightened manufacturing businesses, climate change has become the best business opportunity that they have been presented with for decades.

These businesses are working on two fronts: they are addressing the simple resource efficiency issues that will start to bring down CO_2 produced per unit of output; but, more importantly, they have realised that legislation will increasingly create new markets for new products and technologies. These businesses have already begun to use innovation to bring advanced technology to bear on the problem, servicing early niche markets and finding opportunities to grow their sales. They will be the beneficiaries of the early-mover advantage, when larger markets open up, as well as playing their part in 'saving the planet'.

Many of the senior executives in these companies are CPI alumni and this chapter provides a small number of examples of their work, which demonstrate that there is no inherent contradiction between reducing impacts on the environment and engaging in profitable business in the manufacturing sector.

As you read on, it will become apparent that their new environmental products are largely still pre-commercial. Tremendous hurdles have to be overcome in order to bring any new product to market and never more so than in the environmental sector, where the main benefit is to the community at large rather than the individual customer. In simple terms, whilst production volumes remain low, costs will remain high, leading to high payback periods for potential customers. High upfront capital investment is generally required to scale up production in order to bring unit costs down and a high degree of market certainty is thus required to persuade corporations and the investment community that it is worth the risk.

Legislation that provides market certainty can dramatically reduce this risk profile. Therefore, an ongoing cycle of discussion is needed between those who frame new laws and directives and those whose technical and commercial expertise will enable requirements to be met. Such a dialogue can ensure that the markets are created in a way that allows business to sensibly invest in this new technology and thus accelerate the rate at which the reductions in global CO_2 that we all so desperately need can be promoted by the manufacturing sector.

The UK Government's Business Taskforce on Sustainable Consumption and Production is an example of an initiative which has worked on the broader picture of how UK companies can bring about more sustainable patterns of consumption and production in ways that boost competitiveness and contribute to economic growth. CPI led the Secretariat of the Taskforce, and with other Business Networks is promoting collaborative action on a range of major SCP themes.

Neil Carson
CEO, Johnson Matthey plc

The Dow Chemical Company

On the Industrial Ecology Frontline: Growing Food from Waste

Sustainability Issue: clean drinking water, nutrition, rural development
Sustainability Response: industrial ecology

Drought is an ever-present reality for the impoverished residents of Poleiros in the arid Brazilian state of Paraiba. The town uses a desalination system to make water drawn from deep wells fit to drink. But until recently this had created a new problem, with workers dumping desalination waste on the land, making soil, crops and vegetables unhealthily salty, with knock-on nutrition problems.

Since 2003, however, thanks to an innovative partnership between a state university, an NGO, The Dow Chemical Company and the community, the desalination waste has been put to good use. In a pioneering example of successful industrial ecology, the waste has been converted for use in a new shrimp and tilapia farm and to irrigate land to grow herb salt plants for animal feed. The seafood farm is generating jobs and income, while the local soil and nutrition problems have abated.

The holistic production cycle was developed by technicians at the Federal University of Campina Grande and implemented by Paraíba's Technological Park Foundation, which trained local people to maintain the desalination equipment and operate the farm. Dow was approached by the foundation through a local water systems manufacturing partner and provided specialised nanofilter technology. This enabled the dissolved waste salts to be separated from well water, using reverse osmosis membranes. The company also helped fund the installation of wind energy to power the farm, cutting costs.

The desalination system produces 800 litres of drinking water and 1,200 litres of waste an hour. The latter is filtered into acclimatisation tanks where sea water shrimp larvae transported from coastal states adapt to the waste salinisation content. They are then transferred to nursery tanks to be fattened up for sale. Other nursery tanks are used to farm tilapia fish. In an area of high unemployment and poverty, the site provides eight families with a stable income of US$193 a month, with both husbands and wives employed. More jobs are envisaged as production expands.

Leftover waste water is used to irrigate atriplex (or herb salt), a native Australian plant that thrives in high sodium soil in hot climates.

"The project exemplifies two of our specific goal areas – Breakthroughs to World Challenges (in this case, clean, fresh water) and Community Success – understanding the fundamental needs of the communities in which we do business and helping to provide solutions to those needs."

Scott Noesen, Director of Sustainable Development, The Dow Chemical Company

Rich in vitamin A, atriplex leaves can be eaten by humans, as well as providing animal and fish feed. Salt-resistant coconut trees are also being cultivated. The foundation hopes to complete the sustainable production cycle in the near future by using evaporation tanks to commercialise salt deposits.

"When the salt is sold it will be a 100% closed loop cycle, with all the desalination waste used," says Leticia Jensen Borges, Dow's FILMTEC membranes marketing manager for the Americas. "It's a big challenge to grow food in the area and the farm has provided a breakthrough in the economic life of the community."

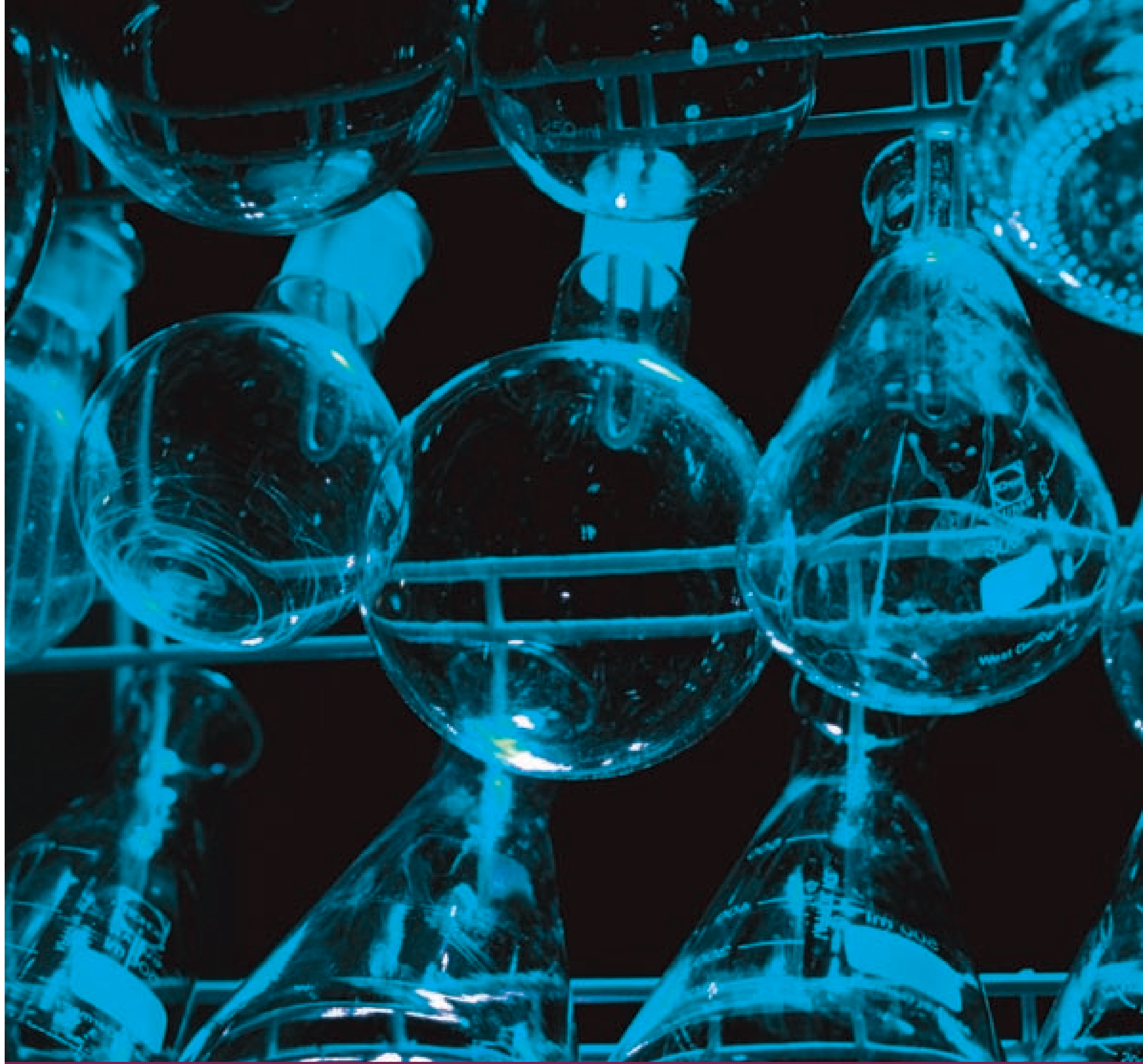
Replicability

The shrimp farm represents the company's first Latin American experiment with industrial ecology, using freshwater supply by-products to turn waste into food. Dow will increasingly pursue such closed loop solutions in line with its 2015 Sustainability Goals, according to Scott Noesen, Director of Sustainable Development, who attended The Prince of Wales's Business & the Environment Programme (BEP) in 2000 and is now a member of the BEP West Coast faculty. "The project exemplifies two of our specific goal areas – Breakthroughs to World Challenges (in this case, clean, fresh water) and Community Success – understanding the fundamental needs of the communities in which we do business and helping to provide solutions to those needs."

The Poleiros project's potential for replication has also been recognised by the United Nations Environment Programme (UNEP), featuring in its best practice video series Eco4 the World.

Vital Statistics:

The Dow Chemical Company supplies innovative chemical, plastic and agricultural products and services to customers in 175 countries. It has 43,000 employees worldwide.



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Marks & Spencer

Packaging Pioneers

Sustainability Issue: packaging waste

Sustainability Response: post-purchase customer recycling

The disposal of packaging waste generated by throwaway consumer societies has become a major sustainability issue. Plastic and cardboard wrapping, for example, fills 40% of the typical British dustbin.

But who should be responsible for reducing packaging's sizeable carbon footprint – manufacturer, retailer or consumer? Generally even eco-conscious retailers have kept their recycling efforts in-house, abrogating responsibility for post-sale products.

Until now. High street retailer Marks & Spencer has broken this mould by funding and promoting a pioneering initiative to install recycling bins in customers' workplaces. Launched in April 2008 in partnership with London-based Closed Loop Recycling, the programme links eco-minded office workers with waste collectors, enabling the former to recycle the plastic, metal and cardboard which wrap their takeaway lunches.

The scheme is operating on a pilot basis in London, Birmingham, Leeds and Manchester. Marks & Spencer sells more lunchtime sandwiches and snacks than any other high street outlet and all products in its 'Food to Go' range now feature information and a website address – www.recycle-PlanA.com – for the office recycling scheme. Businesses which sign up online receive quotes from local waste providers. If a contract is agreed, businesses receive recycling bins, marked with the M&S logo and all their waste paper, metal and plastic is collected weekly and taken to a sorting and recycling facility. The whole process is facilitated and managed by Closed Loop and the average cost for a 20-person office is estimated at £5 per week.

The first of its kind in the UK, the scheme is innovative on two fronts: involving customers in post-purchase recycling and operating through a recyclables intermediary. It complements a recent re-launch of the 'Food to Go' range, using lighter packaging, more post-consumer plastics and cardboard containers sourced only from Forest Stewardship Council-approved forests. The takeaway range now boasts 90% recyclable packaging. The initiative is part of M&S's company-wide, £200m 'eco-plan', known as Plan A.

According to Richard Gillies, Director of Plan A, customer recycling was a logical next step for the company's packaging strategy. "As part of our Plan A 'eco-plan', we are committed to making it easier for our customers to choose greener options. We are getting better at encouraging customers to recycle from home and this scheme now gives consumers an easy solution for getting rid of their food packaging responsibly at work," explains Gillies, an alumnus of the Climate Project training programme that CPI ran in 2007 with Former US Vice President Al Gore.

Marks & Spencer is one of three primary sponsors of the customer recycling initiative, and is putting information on the scheme on its packaging. Developing the innovative

"We are getting better at encouraging customers to recycle from home and this scheme now gives consumers an easy solution for getting rid of their food packaging responsibly at work."
Richard Gillies, Director of Plan A, Marks & Spencer

partnership, however, hit a major hurdle when M&S's ambition to promote the scheme throughout its 600-plus stores came up against the realities of an office recycling industry largely confined to Central London and a few other city centres. This was overcome when Closed Loop persuaded several waste collectors to support the fledgling scheme outside Greater London.

Scaling Up

Three weeks after its launch, Closed Loop Recycling had made contact with dozens of interested customers. Given his company's marketing clout, Keith Rawlings, the M&S manager who oversees the Closed Loop partnership, says he hopes "to extend the scheme to other UK regions". But he cautions that expansion will depend on a credible mass of offices signing up for recycling facilities in any given area, thus making collections viable for waste management companies.

"Individual offices might find the cost of bringing a commercial waste collector to a new area prohibitive," he points out. "That's what is so exciting about our partnership. By keeping a central database of interested offices, Closed Loop can demonstrate there's a real need and desire for waste collections from commercial properties."

Vital Statistics:

Marks & Spencer is a leading UK retailer of clothing, food and home products. Every year, 21 million people visit its 600-plus stores. The company employs over 75,000 people and has over 275 stores in 38 international territories.

Ecologic

Promoting Sustainable Sports Goods: the Ethletic Football

Sustainability Issue: consumer goods production

Sustainability Response: social and environmental certification and labelling

This international match-standard football is the first of its kind in the huge global sporting goods trade. Developed and sold by London-based FairDeal Trading, it offers ethical consumers a double bonus, boasting both the Fair Trade seal and Forestry Stewardship Council (FSC) certification.

The company has sold fair trade footballs, basketballs and volleyballs for some time, paying a 50% wage premium to the Pakistani women and men who hand-stitch the balls in villages near Sialkot, the self-described 'world capital of football production'.

But since 2007 they have also guaranteed their ecological sustainability by sourcing the latex (rubber) for the bladder and the lamination from a south Indian plantation which meets the FSC's strict social and environmental criteria. The sustainably managed plantation reduces pressure on the surrounding natural forest and its workers receive a Fair Trade wage premium, which is invested in a schools fund.

FairDeal Trading's Ethletic sports balls can be purchased individually, online, or customised for bulk buying. German eco-consultancy Ecologic initiated and supported development of the product by FairDeal Trading and bought the first customised consignment in order to promote take-up of sustainable sporting goods among companies, local government and sports organisations. "The potential market is enormous," says director R. Andreas Kraemer, an alumnus of The Prince of Wales's Business & the Environment Programme's Salzburg seminar in 2005. "There is sufficient capacity in terms of FSC-approved plantations to expand production significantly. Balls could be used by the UK Premier League, for example."

Given that both the Fair Trade and FSC certifications obtained by FairDeal Trading are open schemes, he added, "all socially and environmentally responsible sports goods businesses can (and should) follow suit".

Th!nk Global

Resurrecting the Electric Car

Sustainability Issue: mobility, climate change
Sustainability Response: advanced technology, innovative marketing

In the search for sustainable mobility, electric vehicles have a clear advantage: zero emissions on the road. Yet efforts to develop commercial models have had a long and bumpy history, with major carmakers alternately investing in their development and then pulling the plug.

In March 2008, Norwegian company Th!nk Global launched the latest electric car model in Oslo showrooms, with an innovative sales, marketing and partnership approach which the company hopes will crack the elusive mainstream market. A two-seater, with a 2+2 option, plug-in city car with state of the art safety and communications features, a top speed of 100kph and a driving range of 180km, the Th!nk City began production in November 2007 and is currently being road-tested and sold in Norway. A London launch is planned for summer 2009.

Its new technology apart, Th!nk Global has developed a three-pronged strategy to avoid the barriers encountered by previous electric vehicle makers: choosing target countries with conducive regulatory environments and an eco-aware public; making partnerships with mainstream players such as electric utilities and alternative, non-traditional automotive distribution networks that can help the vehicles penetrate beyond a niche market; and retaining ownership of the batteries in order to allay consumer concerns about steep purchase prices and the high costs associated with battery purchase and replacement.

As a result, customers will be able to buy a Th!nk City for £13,000-15,000, rather than the £20,000 face value. In addition, owners will pay approximately £100 a month to lease the lithium battery from Th!nk Global, which will guarantee to repair and replace faulty and end of life batteries.

"Our challenge is how to penetrate the market rapidly and drive up sales volume, so that we can bring prices down to something closer to other small cars", explains Richard Blundell, Th!nk Global's Vice President of International Business Development and an alumnus of The Prince of Wales's Business & the Environment Salzburg seminar in 2007. "To succeed, we have to be disruptive and innovative in how we present the Th!nk City to customers."

The company will seek to overcome the still high purchase price by marketing the Th!nk City based on a "compelling total cost of ownership rationale", including maintenance and running costs, insurance, vehicle excise duty and parking charges. A key part of this early market entry strategy is targeting eco-friendly cities and countries where congestion charges, free parking and other related incentives for low emission vehicles are already in place. "Th!nk City owners who drove into Central London every day would save close to £8,000 a year due principally to the combination of the congestion charge waiver and free parking for electric vehicles," says Richard Blundell. "The UK also has a supportive national government which is considering reducing VAT to 5% for electric

vehicles as well as other purchase and energy related incentives." Th!nk Global will establish a UK subsidiary to import, distribute, sell and service the Th!nk City, first in London, then in other UK cities. Th!nk's UK partners, including a major utility and an experienced automotive products retailer, will both help to establish a national distribution and sales network and use their reach to lobby regulators for additional incentives for electric car buyers.

Scaling Up

Th!nk Global aims to sell close to 30,000 cars a year in 2011, 3,000 in the UK alone. One challenge will be how to provide convenient charging facilities in cities where many people live in apartment buildings without accessible garages for plugging in batteries. Th!nk Global is exploring with its UK utility partner the potential for providing plug-in stations at workplace parking facilities, as well as potentially integrating charging stations into street lamps. Moreover, Th!nk is likely to focus on early market penetration in the commuter belt, to take advantage of greater access to home-based charging opportunities, with subsequent penetration in the city centre as charging infrastructures become more mature.

Establishing a mass market customer base will also require developing innovative distribution and sales channels, says Richard Blundell. "Th!nk plans to execute a retailing strategy which combines a network of brand stores in large cities with an internet sales platform and alternative sales channels through relationships with brand-compatible partners."

Vital Statistics:
Th!nk Global is a company created by Norwegian investors who bought the electric car producer Th!nk in 2006, after the Ford Motor Company invested $150m in the vehicle's market development.

CPI

A Look to the Future

The essays and case studies in this publication are evidence of a profound shift – in many individuals and their organisations – in the way we understand the role of business in society. This movement is perhaps at its most visible in the development of new sustainability-focused products and services, in the emergence of worldwide cross-sector partnerships, and in business's on-the-ground engagement and partnership with local communities and their representatives.

The change can also be seen in the external reporting and communication developed by many organisations to give an account of their social and environmental impact and to learn from and inform stakeholder perspectives. Also evident is a myriad of organisational structures, systems and personal development programmes that have been developed to grapple with the complexity of today's global challenges. And, last but not least, the shift in thinking about business and sustainability is evident in the way that more and more leaders are clearly articulating why sustainable development matters strategically to their organisation as well as themselves personally.

CPI's contribution to this emerging practice and conversation around sustainable development has of course been modest, though we remain tremendously proud of the ideas, influence and impact of so many of our alumni. We also remain ambitious – determined to maximise our contribution to leaders' understanding and ability to respond to the most pressing sustainability challenges of tomorrow.

Over the last twelve months the CPI team has enjoyed many challenging and inspirational conversations. To help us review our work and plan for the future, we have met with our faculty and contributors, with members of the University and our Senior Associates, and most importantly with our alumni as well as those who might later join our programmes. Consistently four things have been identified as being at the heart of CPI's contribution:

- the role of Cambridge University as a trusted space in which individuals can challenge their fundamental assumptions and make personal commitments to creating change towards sustainability;
- the personal commitment of HRH The Prince of Wales and his remarkable ability to convene the most influential people in the world;
- the importance of convening leaders with diverse experience to consider strategic, global challenges and to transform their understanding and actions; and
- the worldwide alumni network which allows us to create engaging learning experiences across a range of subject themes, sectors and geographic regions.

We will continue to benefit from our access to these incredible assets, yet we also recognise that the means by which we are able to support leaders in the coming years will need to adapt to changing circumstances. We must ensure that we are working with leaders who are well-positioned to influence the future of the planet, either by virtue of their formal organisational responsibility or through their personal knowledge and inspiration; and we must work with leaders in ways that enable them to address the most significant challenges they face. In recent years, we have sown the seeds of this approach.

To name just three examples, we have expanded our international operations, working with groups of Chinese leaders to consider the achievement of a 'Xiao-Kang' or 'balanced' society; we have convened The Prince of Wales's Corporate Leaders Group on Climate Change, most recently joining with other business leaders to prepare The Bali Communiqué as a contribution to the international policy debate; and we have expanded the range of our customised programmes to help leaders influence their wider organisations.

Based on this experience, our commitment over the next five years is to:

- enhance the sustainability knowledge and impact of individual leaders across the globe;
- strengthen the impact of leaders through their organisations; and
- extend the impact of leaders and organisations through collective dialogue and action.

In particular we have broadened the basis of our alumni activities to bring together alumni and faculty of all of our programmes into a global Cambridge Sustainability Knowledge Network. This network will have access to an unparalleled range of materials including case studies, a research digest, seminar presentations and other publications and papers. Sharing and developing materials across the wider group of all CPI alumni will help us to enhance the quality of information that we present on our programmes.

The 2,500 senior leaders who constitute CPI's Cambridge Sustainability Knowledge Network represent the largest group of alumni anywhere in the world who are brought together by a common interest in the subject of sustainable development. We look forward to working with our existing alumni – and with an increasing range of leaders from business, government and civil society – to continue to play our modest part in this most important of endeavours.

Mike Peirce
Deputy Director,
Cambridge Programme for Industry

Cambridge Programme for Industry (CPI)

Cambridge Programme for Industry (CPI) seeks to help present and future leaders deepen their understanding of the social, environmental and economic context in which they operate and respond in ways that benefit their organisations and society as a whole.

Our work supports the mission of the University of Cambridge, which is to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

CPI has twenty years of experience of working with leaders from the private, public and not-for-profit sectors around the world. Our staff and faculty combine a deep understanding of the processes of formal and informal learning with a practical appreciation of the dynamic and strategic context in which our delegates operate.

CPI programmes include:

The Prince of Wales's Business & the Environment Programme
Three-day seminars are held annually in Cambridge, Cape Town, New York, Salzburg, Seattle, and Sydney.
The Programme is designed for business leaders and senior executives who operate at a strategic level within their organisation and who need to make the right long-term decisions to make sure their organisations grow sustainably and profitably.
www.cpi.cam.ac.uk/bep

Postgraduate Certificate in Sustainable Business
A part-time course, commencing in April each year and running over an eight-month period, consisting of three short workshops plus work-based learning, leading to a Masters-level Postgraduate Certificate.
The Programme, which was developed in association with Forum for the Future, helps mid-career and fast-track managers put sustainability/corporate social responsibility principles into practice and provides opportunities for shared learning across a diverse range of organisations.
www.cpi.cam.ac.uk/pcsb

Postgraduate Certificate in Cross-Sector Partnership
A part-time course, commencing in April each year and running over a nine-month period, consisting of two short workshops plus work-based learning, leading to a Masters-level Postgraduate Certificate.
The Programme, which was developed in association with IBLF, helps international managers to understand, create, operate and evaluate cross-sector partnerships.
www.cpi.cam.ac.uk/pccp

Chronos e-learning
A 3–4 hour e-learning primer on corporate social responsibility/sustainability that is available on the web or CD-ROM and can be customised for individual companies.
This e-learning tutorial, developed in partnership with the World Business Council for Sustainable Development, provides a concise and straightforward introduction to the business case for sustainable development and can help businesses embed sustainable development thinking into their organisational culture. There are now around 150,000 users worldwide. Chronos workshops can also be provided that blend e-learning with face-to-face training.
www.sdchronos.org

Climate Leadership Programme
A three-day seminar is currently run in Cambridge and North Carolina.
Developed in partnership with The Climate Group and Duke University, the Programme builds capacity in organisations to address the challenges and opportunities of climate change. It is designed for senior leaders from business, government and non-governmental organisations with responsibilities relating to climate, energy, resources or procurement.
www.cpi.cam.ac.uk/climate

Business and Poverty Leadership Programme
A three-day seminar is run in Cambridge and emerging economies.
The Programme is designed for senior managers with responsibility for business development, product development or business units in developing countries, and for specialist staff who act as champions in their organisation for corporate investment in developing countries. It explores the issues that poverty raises for commercial organisations and considers the opportunities for business to achieve growth and prosperity through responding to these challenges.
www.cpi.cam.ac.uk/emerging

Other CPI activities include:

The Prince of Wales's Corporate Leaders Group and EU Corporate Leaders Group on Climate Change

These two groups bring together business leaders from major UK and European companies who believe that there is an urgent need to develop new and longer-term policies for tackling climate change. Their mission is to communicate the support of business for a move to a low carbon economy and to work in partnership with the institutions of the UK Government and the EU to secure the policy interventions that are needed to make this a practical reality. Both groups have been formed under the auspices of The Prince of Wales and are managed by CPI.

P8 Group

The P8 Group brings together senior officials from leading public pension funds to develop actions relating to global issues and particularly climate change. This group collectively stewards over $2 trillion dollars; and leads a peer group of managers of what may be the most focused capital in the world. The funds share a long-term investment horizon, and by virtue of their scale and mandates are permanently exposed to the economic and human health consequences inevitably imposed by climate change.

Business Taskforce on Sustainable Consumption and Production

A Steering Committee consisting of CEOs/board-level executives reported its findings in June 2008.

The Business Taskforce provided business advice to government in order to shape policy-making relating to sustainable consumption and production, in support of proposals for business action in key markets.

The Cambridge African Sustainability Practitioners Seminar

A 3.5-day seminar for middle to senior management held in South Africa in November.

The seminar is designed for managers who have responsibility for some or all aspects of sustainable development, corporate social responsibility or corporate social investment in their organisation, as an opportunity to explore best practice and reflect on how best to integrate sustainability into corporate strategy and operations.

Issue and Sector Dialogues

Small-group facilitated policy and practice dialogues on specific topics of current debate such as biofuels, construction, pensions and insurance.

These dialogues provide a neutral forum in which peers from diverse fields of practice come together to explore issues and opportunities that can inform business practice and government policy.

Tailored Programmes

Customised executive briefings and leadership seminars.

Customised workshops provide high-level strategic overviews of key sustainable development issues for executives and leaders at all levels.

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Reducing our own sustainability footprint

Cambridge Programme for Industry brings together leaders from around the world to attend events which address global sustainability issues. These events inevitably have environmental impacts of their own. We are committed to minimising these impacts, firstly by considering journey distance and means of travel to venues for our programme team, faculty and contributors; secondly, through working to source organic and locally produced food and drink at our events; and, finally, through minimising our use of hard-copy materials. We realise that, in spite of these efforts, our programmes still have a carbon footprint. To address this, we offset the carbon footprint of the venues we use, as well as the travel footprint of the programme team, faculty and contributors. We encourage participants to offset the carbon impact of their own travel to and from our events. If participants opt not to offset their carbon, we will do so on their behalf. In addition to this, we offset the operational footprint of our day-to-day office activities and continually seek to reduce our waste, energy use and raw material consumption.

For further information visit: www.cpi.cam.ac.uk

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Business and Poverty Leadership Programme (BPLP):

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P8 Group:

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CPI is also grateful to the Freshfield Foundation for its ongoing support.

UNIVERSITY OF CAMBRIDGE
PROGRAMME FOR INDUSTRY

CPI provides leadership development programmes, dialogues and other learning services for senior individuals and major organisations around the world. Our focus is on developing capacity to develop creative responses to global challenges, working predominantly with the corporate sector, but increasingly also with government and civil society. Our expertise lies in understanding how people learn and in developing learning processes that can change individuals and organisations in ways that will move society towards sustainability. CPI's programmes draw on world class contributors from academic, policy and practitioner circles. We collaborate with academic and other partners and our work is underpinned where relevant by applied research.

Over 2,500 leaders from hundreds of organisations have worked with us and remain in touch with each other through our active Cambridge Sustainability Knowledge Network, which provides a vehicle for ongoing debate and development. CPI is a department of the University of Cambridge, with offices in the United Kingdom (Cambridge), South Africa and Australia.

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