



# SUSTAINABLE DEVELOPMENT INTERNATIONAL

## DEVELOPING SUSTAINABILITY

Dr. Klaus Toepfer on how UNEP is building capacity for sustainable development

## FOCUS ON THE COMMONWEALTH

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# SUSTAINABLE DEVELOPMENT INTERNATIONAL

Welcome to SDI-10. The Spring 2004 edition of Sustainable Development International that you are now reading is a rather special one. It is the tenth edition of SDI and has a number of features that we have been developing for the occasion.

We aim to showcase the positive stories of activity and partnership at all levels from the local community, small business and NGOs, through corporations and government to multilateral international organisations.

We are privileged to have been appointed by the Commonwealth Secretariat to produce the official publication for the 2004 Commonwealth Consultative Group on Environment meeting in March. Environment Ministers and other luminaries from the 53-nation Commonwealth have contributed articles on the issues that will be centre-stage there. The meeting brings together Ministers from more and less developed countries, from North and South, to consult on the environment and sustainable development.

Other new features in the following pages include 'CSR watch' that highlights Corporate Social Responsibility and sustainability initiatives undertaken by companies. There is also a useful guide for companies on where to go for advice and assistance on social responsibility concerns. These items grew out of feedback received from our partners, and we will develop and augment them for future editions.

The main themes of the Commonwealth meeting and the annual United Nations Environment Programme (UNEP) meeting also taking place in March are water, sanitation and human settlements. New Zealand will chair the meeting, and her Environment Minister Hon. Marian Hobbs writes here about these main themes and the importance of the Commonwealth meeting.

Dr. Klaus Toepfer, Executive Director of UNEP has written, opposite, a special foreword for SDI that also examines these themes and explains the importance of the UN's capacity building activities in achieving them.

We are pleased to be working with a number of conferences and events to distribute SDI, including the UNEP and Commonwealth meetings referred to above, and GLOBE 2004 in Vancouver, Canada.

Our next edition will take a closer look at CSR and sustainable finance, and will contain more special features and case studies to illustrate multi-stakeholder dialogue and partnerships for action. Until then, please show SDI to your colleagues and friends, and visit our website [www.sustdev.org](http://www.sustdev.org) for special web-only features, corporate CSR reports, daily news and a regularly updated events calendar. And do please write to me at [nhorley@sustdev.org](mailto:nhorley@sustdev.org) with responses to the articles or on any other issues.

Neville Horley  
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## Capacity for sustainable development

In this special foreword for SDI, Dr. Klaus Toepfer, Executive Director of United Nations Environment Programme (UNEP) describes how capacity building has become a principal priority of all UN activities. UNEP's capacity building activities encompass the development of environmental policy, legislation and institutions; assessment of the state of the environment; training and awareness raising; and the application of economic instruments that reinforce sustainable development. Dr. Toepfer also addresses the issue of water and sanitation, the theme of UNEP's annual Governing Council/Global Ministerial Environment Forum meeting in Korea in March. He argues that effective action for sustainable water use requires capacity to be built as widely and deeply as possible.

Over the past several years it has become clear that capacity building is central to sustainable development. If internationally agreed goals, such as those contained in Agenda 21, the Millennium Declaration and the Plan of Implementation of the World Summit on Sustainable Development are to be achieved, the ability of regional organisations, national governments and civil society to address the principal challenges of sustainable development must be reinforced. Capacity building has therefore become a core goal of technical assistance provided by the UN system. Instead of being regarded as merely a component or by-product of development programmes and products, capacity building has become a principal and explicit priority of all UN activities.

Without the necessary capacity, developing countries and countries with economies in transition will be unable to identify and solve their own development problems. But, to acquire the necessary skills and institutional infrastructure these countries need assistance. In a previous article for SDI [Second Edition (2000) p.13] I wrote about UNEP's Global Environment Outlook (GEO) programme. The growing portfolio of global, regional and national GEO reports achieve two main things. They paint a picture of the state of the world's environment, and they propose steps that can be taken to avert projected scenarios if we assume a 'business as usual' attitude. Capacity building is a cornerstone of the GEO process, providing a mechanism to transfer the experience and knowledge gained by UNEP and its collaborative partners to regional, sub-regional and national organisations involved in environmental assessment and reporting, thus informing decision making for sustainable development at all levels.



Dr. Klaus Toepfer

Capacity development is central to sustainable development and has always been at the heart of UNEP's work

### The power of knowledge

Knowledge products such as GEO have highlighted the scale of the development challenge confronting the world's governments. Since UNEP's creation following the 1972 UN Conference on the Human Environment in Stockholm, the world has witnessed an accelerated pace of change. The global human population has grown by 50 per cent, poverty continues to soar in many parts of the world, and the staggering technological advances of the past 30 years that are driving the forces of globalisation have created seemingly as many problems as they have solutions. Across the globe,

we are placing in jeopardy many of the life-support systems on which we depend. What has become increasingly clear during that period is that the environmental, economic and social pillars of sustainable development are intricately linked, and that solutions to development questions will only be found through holistic approaches that involve all stakeholders, including indigenous peoples, youth, women, civil society and the private sector.

This raises the fundamental question of the capacity of the various stakeholders to find and act on those solutions. To effectively address the development issues of the twenty-first century, countries need to be able to understand, evaluate, predict and respond to emerging needs. As was clearly noted in Agenda 21, reaffirmed by UNEP's first Global Ministerial Environment Forum in Malmö in 2000, and emphasised by the WSSD Plan of Implementation, capacity development is central to sustainable development. That is why the WSSD Plan of Implementation calls for more effective, better resourced, coordinated and complementary capacity building activities for all poverty alleviation and sustainable development programmes.

### Why capacity must be built

The increasing impacts of poverty and urbanisation, the impending water crisis and the lack of adequate sanitation in much of the world, the over-exploitation of the world's oceans, forests and other natural resources, and the immense loss of biodiversity: all demand innovative thinking, new approaches and the capacity to implement them. Sometimes this means strengthening legal infrastructure, sometimes it means developing new institutional mechanisms, and often



it means transferring appropriate knowledge and technology to where it is needed. It is no wonder, then, that capacity development has always been, and continues to be, at the heart of UNEP's work.

UNEP's capacity building activities encompass the development of environmental policy, legislation and institutions for sound environmental governance; assessment of the state of the environment, along with associated training, information provision and awareness raising; promoting the transfer and adoption of environmentally sound technologies; helping to change unsustainable patterns of production and consumption; and working on a wide range of industry-related issues, such as clean and renewable energy, cleaner production, and the application of economic instruments that reinforce sustainable development.

#### Multilateral agreements

Over the past three decades UNEP has also successfully supported the development and implementation of a number of important multilateral environmental agreements (MEAs). This success in developing MEAs presents a major challenge in their implementation by parties at the regional and country level. Creating synergies and inter-linkages among MEAs is therefore another of UNEP's important areas of capacity development. An example is the three related conventions that deal with chemicals and hazardous wastes: the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Pollutants and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. Increasing globalisation and the enormous market for chemicals means that safety programmes must be strengthened. UNEP's capacity development in chemicals management aims to enable countries to put in place adequate mechanisms to prevent chemicals from damaging ecosystems, causing health problems and

compromising global efforts, agreed at WSSD and in the Millennium Declaration to increase access to safe and affordable drinking water.

#### Water and sanitation

Sustainable use of water resources is perhaps the major challenge for the twenty-first century, alongside climate change, to which it is closely linked. Water and sanitation was identified prior to WSSD by the UN Secretary-General as a key area for action alongside energy, health, agriculture and biodiversity. The pressure on water resources arising from population growth, wasteful agricultural practices, expanding industry, and unsustainable consumption patterns as standards of living improve shows no sign of decreasing. As always, it is the poor who suffer the most as the demand for water grows. UNEP water assessment reports show that, if current trends continue, two out of every three people on Earth will suffer moderate to severe water shortages in little more than two decades from now. This presents a daunting challenge to the commitment made in Johannesburg to halve the proportion of people living without adequate sanitation by the year 2015 and also to halve, by the same year, the proportion of people without access to safe drinking water.

To meet this challenge we need accurate and up-to-date information from comprehensive water assessments. Equally we need institutional and programmatic support to build the required capacity for decision making and policy development at the national, regional and global level. To support this UNEP is participating in a number of key water assessments which include GEO, the Global International Waters Assessment (GIWA), and the UNEP Global Environment Monitoring System (GEMS) Water Programme. Experience gained from these programmes has revealed the need to strengthen the capacity of countries to undertake water quality and quantity

assessments that incorporate both social and environmental considerations. For instance, the GIWA programme has shown that local expert capacity is crucial to understanding the management of transboundary water resources and developing policy options for remedying or mitigating identified problems.

The pressure on water resources shows no sign of decreasing

#### Integrated management

The issue of safe water and adequate sanitation also lies at the core of the UNEP-hosted Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA). The GPA provides a strategic framework to address the integrated management of rivers and coastal areas. It assists developing countries to incorporate the objectives of the GPA into national and regional development plans and to harmonise the management of coastal areas with river basins. Recognising that sanitation is not limited to pipes and toilets, the GPA, in collaboration with other partners, has developed a Strategic Action Plan on Municipal Waste Water to address the environmental aspects of sanitation. UNEP has also helped to broker various regional environmental agreements related to water, and is supporting the development of inter-governmental action plans for river and lake basins, for instance for the Zambezi River, the Aral Sea and Lake Chad. The bottom line is to strengthen the capacity of countries to develop and implement practical policies, action plans and legally binding agreements for the conservation, protection and sustainable use of water resources.

As much as inadequate sanitation is a problem in cities all over the world, the thirst for water is even more pressing. To quench this thirst and make water accessible and affordable to all is a major challenge. To meet this challenge the Water for Cities initiative being implemented jointly by UNEP and UN Habitat focuses on strengthening the capacity of cities to plan, develop and implement water management strategies and action plans, including rehabilitating degraded rivers and catchments. In the same field, UNEP's International Environmental Technology Centre in Japan (see article on p.58) promotes the application of environmentally sound



technologies in developing countries and countries with economies in transition for the management of freshwater resources and to address urban environmental problems such as sewage and solid waste.

## Partnerships for capacity

Another way UNEP provides leadership in caring for the environment is through partnerships with distinguished centres and institutions. Much of UNEP's capacity building is carried out through specialised collaboration centres such as the GEMS/Water Collaboration Centre in Canada, the Kalmar International Water Assessments Centre in Sweden and the Centre on Water and Environment in Denmark. UNEP is also strengthening centres in developing countries through which these collaborating centres work. UNEP also cooperates with other agencies to strengthen synergies and collaboration in water capacity development through institutions such as the Multilateral Environmental Agreements Joint Liaison Group. UNEP also chairs the UN system-wide Environment Management Group, as well as providing its secretariat. This year I chaired two Environment Management Group meetings, where it was decided to focus on the environmental aspects of water, sanitation and human settlements. The Environment Management Group also organised a discussion that included the representatives of a number of MEA secretariats on their needs and concerns regarding capacity building, on which subject UNEP is preparing a paper for further discussion in 2004.

It is plain, then, that capacity building is, and will remain, an essential element

in all areas where the UN and its partners are working for sustainable development. As the voice for the environment within the United Nations, UNEP will continue to play an essential role, not only as a catalyst, advocate and educator, but as a facilitator, developing tools, teaching skills, and evolving institutional infrastructures. In this regard I should point out the increased mandate of UNEP at the regional and country level as far as capacity development and

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their technological options  
remains urgent

technology support are concerned. At its seventh Special Session in Cartagena, Colombia, in February 2002, the UNEP Governing Council/Global Ministerial Environment Forum mandated UNEP to lead an inter-governmental consultation process towards a strategic plan for strengthened multi-agency delivery on capacity building and technology support at the regional and national level. In the process, UNEP will increase its collaboration with members of the UN family and with intergovernmental and nongovernmental organisations. This new development, which should be further advanced at the eighth Special Session of the UNEP Governing

Council/Global Ministerial Environment Forum in Jeju, Korea, in March 2004, will help developing countries to improve internal coordination to implement sustainable development strategies and receive greater financial, technological and technical resources from the international community.

## Funding and political will

This issue, of the availability of adequate and predictable sources of funding to achieve internationally agreed targets, combined with sustaining the political will to mobilise local resources, remains a major challenge, whether we are discussing water and sanitation or the broader issues of sustainable development. The need to strengthen the capacity of developing countries and countries with economies in transition to undertake integrated environmental assessments, to develop policy options and to expand their technological options remains urgent. UNEP's capacity building activities are serving this need. It is too early to gauge their success, but not too early to gauge their potential. They provide the foundations of sustainable development. The WSSD Plan of Implementation, with its emphasis on capacity building, provides a clear blueprint for a sustainable future. Our task is to make sustainable development more than a catch phrase. In the words of the Youth Advisory Council of the UNEP Governing Council, speaking on behalf of those who will inherit the Earth: we have done enough talking; now is the time to act.

### ABOUT THE AUTHOR

Klaus Toepfer is the Executive Director of the United Nations Environment Programme (UNEP). As Minister of Environment in Germany, he introduced many ground-breaking environmental laws. He is known internationally for his commitment to sustainable development, and for fighting for the cause of the developing world. Dr. Toepfer believes that environment policy is the peace policy of the future, and that social market economics coupled with wise environmental stewardship can improve the lives of all.

### ABOUT THE ORGANISATION

United Nations Environment Programme is the voice for the environment within the United Nations. It states its mission as: To provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

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Note: UNEP's 2002 publication Capacity Building for Sustainable Development is available at [www.unep.org/Pdf/Capacity\\_building.pdf](http://www.unep.org/Pdf/Capacity_building.pdf).



# Corporate Responsibility...Why?

There is a public expectation that, beyond profitability, companies must maintain high ethical, environmental and social standards. These standards have evolved over time, reflecting the changing values and priorities in our society. Companies must enhance their efforts to publicly report on their standards and performance against these standards, to allow stakeholders to develop a more complete picture of their impact on society.

While Talisman strives to maximize shareholder value by conducting profitable operations in accordance with all applicable laws, our license to operate ultimately comes from the acceptance and goodwill of our stakeholders, including our employees, host governments and local communities.

At Talisman, we operate in accordance with our Policy on Business Conduct and Ethics, which means:

- We treat our employees ethically and fairly;
- We create a safe work environment, minimize the environmental impacts of our activities, regularly review our environmental and safety performance and promptly and effectively respond to environmental and safety risks and concerns;
- We believe that the countries and communities in which we operate should benefit from our operations through the generation of employment, business opportunities, royalties and taxes;
- Through ongoing dialogue and consultation, we consider the specific needs and capabilities of the communities in which we operate, and accordingly, we invest in communities and encourage volunteerism by our employees;
- We support the principles of and promote respect for the Universal Declaration of Human Rights;
- We review the human rights climate of countries and regions when proposing, planning and implementing projects; and
- We report our social, environmental and economic performance to stakeholders in a balanced manner.

## Talisman's Key Corporate Responsibility Progress in 2003:

### SOCIAL PERFORMANCE:

- We completed a year-long review and update of our Policy on Business Conduct and Ethics, including the development of human rights and community relations' principles for all Talisman employees and operations.
- We confirmed our participation in the United Nations led Global Compact initiative.
- We established formal security arrangements in the spirit of the Voluntary Principles on Security and Human Rights with our coventurers in Colombia.
- We established a community development legacy office in Sudan.
- We contributed approximately \$5.1 million to hundreds of community projects in Canada, the United Kingdom, Sudan, Indonesia, Malaysia, Vietnam, Colombia, Trinidad and Algeria.

### ENVIRONMENTAL PERFORMANCE:

- We received a Certificate of Environmental Clearance in Trinidad with respect to our onshore exploration program.
- We began development of several projects in North America and the North Sea including a cogeneration facility in Edson, Alberta and a potential offshore windfarm at our Beatrice platform in the North Sea.
- We completed environmental audits at our operations at Inga, Carlyle, Warburg and Grande Prairie in Canada and at all of our United Kingdom platforms and onshore terminals.
- We decreased the overall concentration of oil in produced water discharged at our North Sea platforms to 20.4 ppm in 2003.

### ECONOMIC PERFORMANCE:

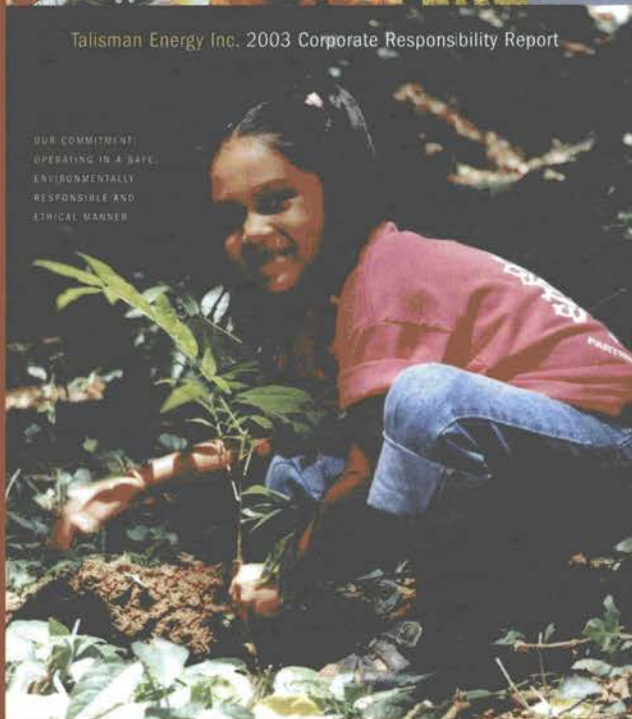
- We generated \$2.7 billion in cash flow (\$21.21/share), which was used to fund \$2.2 billion of exploration and development expenditures.
- We paid dividends of \$90 million (\$0.70/share) to shareholders during the year.





Talisman Energy Inc. 2003 Corporate Responsibility Report

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Talisman Energy Inc. is a large, independent oil and gas producer, with global operations. Talisman's common shares are widely held and listed on the Toronto and New York stock exchanges under the symbol TLM.



# Hungary for environmental progress

Dr. Miklós Persányi, Minister of Environment and Water, the Republic of Hungary, and President of the ministerial meeting of the parties to the UN Framework Convention of Climate Change (UNFCCC COP-9) that took place in Milan in December 2003, spoke to Sustainable Development International about the development of Hungary's environmental programmes and policies. He outlines his Ministry's plans for the coming years including intended regional cooperation within Europe and the Balkans.

**SDI:** Are Hungarians interested in environmental issues; and are they supportive of developing environmental policies in line with the European Union?

**MP:** On the basis of a recent survey conducted by WWF and Cognitive Ltd. the Hungarian population in general shows intense interest in the topic of environmental and nature protection, but they are not completely familiar with the complexity of environmental regulation. A great emphasis should be laid on increasing the environmental awareness of the population in the future. In general we can say that people are first of all problem-oriented. They are more interested in environmental issues that recur in popular magazines or newspapers. City-dwellers tend to be more aware, than are the inhabitants of villages, of environmental problems. In general, women are more likely to consider environmental problems more severe than men. The survey showed that people consider global environmental problems to be more serious than national ones. According to the findings, Hungarians are quite sympathetic to environment-friendly approaches such as avoiding dumping rubbish, or buying eco-labelled goods. Hungarians have high expectations for environmental protection once Hungary is in the European Union (EU). I think it is very important that people should be more involved in environmental issues and more sympathetic to environmental problems.

**SDI:** The European Commission has been regularly reviewing progress of candidate countries for EU accession since 2000. In what areas has Hungary made progress and which still need work?

**MP:** As a result of the ongoing legal approximation process, Hungarian legislation already complies to a large extent with the environmental acquis. The transposition of community environmental legislation will be completed by the date of accession except where new community legislation sets deadlines after the



date of our full membership. The transposition of the Water Framework Directive and the designation of the Natura 2000 areas by a ministerial decree are two crucial tasks to be done before Hungary joins the EU.

Since the 2002 parliamentary elections, the professional profile of the Ministry has changed with the integration of water management, environmental protection and conservation. Many steps have already been taken to strengthen the existing administrative capacity for implementation and enforcement of harmonised legislation. The Ministry will establish the National Agency for Environment, Nature Conservation and Water Management, a mid-level administrative institution that will meet European standards.

There are several major investment directives in the environmental acquis. The implementation of these is the greatest challenge, so the Ministry has developed several programmes, which set out the tasks that have to be achieved by the end of the transitional period granted by the EU or set out in the directives. Programmes for the technical implementation of the urban wastewater directive and the drinking water directive have been approved and are in operation. The National Waste Management Plan was accepted by Parliament at the end of last year. Regional waste management plans were completed at the end of September 2003 and have been promulgated by a ministerial decree. The environmental authorities have to

prepare programmes by 2004 relating to improving the air quality of specific areas.

**SDI:** What environmental programmes are planned for the next few years?

**MP:** After several years of drought there were some extremely dangerous floods on the River Tisza. In order to increase flood safety in the region, the Government decided to accept the Vásárhelyi-plan. The most important objective of the program is to establish sustainable regional development. The program will take 10 years to implement.

The Government has accepted the National Waste Water Treatment Implementation Program. The infrastructure developments in the program should mean that 87% of the Hungarian population would have joined the system by 2015. Implementation of the Program will cost HUF1,000 billion (\$4.5bn). It is our intention to use the financial support provided by Structural and Cohesion Funds.

Let me also mention the National Environmental Action Programme (NEAP-II) (2003-2008). The 1995 Act on the General Rules of Environmental Protection requires that a consensus-building environment strategy (National Environmental Programme) is drawn up and reviewed regularly, to promote environmental protection, economic development and social welfare in an integrated approach. The first National Environmental Action Programme (NEAP-I) was prepared for the period 1997-2002.

In accordance with the 6th Environmental Action Program of the EU, the NEAP-II envisages special actions in the priority areas of environmental awareness, climate change mitigation, human health, food safety, urban environment, biodiversity, the sustainable use of water, rural development, land-use, waste management, and environmental safety. Applying a sectoral approach, the following areas are of special importance: energy, transport, industry, agriculture, tourism, trade, and environmental services and management.



One of the main goals of NEAP-II is that economic development should be implemented in a way that growing welfare is coupled with reduced environmental pressures. So, economic development must be subject to: the establishment and maintenance of a harmonious relationship between society and the environment; the sustainable use of natural resources and land; a limit on exploitation of natural resources so that it does not exceed the carrying capacity of the environment; and prevention or mitigation of environmental damage.

Financial support received from the EU Structural Fund and Cohesion Fund will be used as additional sources for Hungary's sectoral environmental programmes – that require heavy investment. The parallel elaboration of the Cohesion Fund Strategy and the National Development Plan provides us with the opportunity to coordinate the use of the different EU funds, and to ensure synergy between them.

**SDI:** How does the development of environmental policy work in Hungary: do you have the necessary bodies in place to generate strategies and to implement policies?

**MP:** Environmental policy enforcement is regulated and supported by a number of different policy tools in Hungary. In recent years Hungary has started a large-scale environmental policy reform. This aims primarily at adopting EU standards and building sustainable development.

Hungary's environmental policy aims at achieving sustainability by incorporating environmental considerations into sectoral policies. The 1995 Act on General Rules of Environmental Protection introduced the basic principles of pollution prevention, precaution, environmental liability and the right to information.

Macroeconomic policy papers are prepared on a consensual basis among sectoral ministries. Relevant EU strategy papers serve as inputs when formulating sectoral strategy papers. In formulating strategies and adjacent legislation a wide

range of stakeholders are involved, including lower governmental levels. Conformity to environmental legislation is assured by intensive sectoral discussions during the preparation phase.

The integration of economic, social, regional and environmental aspects is facilitated by a variety of legal, administrative, economic and other tools and instruments. Concerning economic instruments, several environment-related charges – such as product charges on fuel, packaging materials and batteries – have been introduced. The environmental management system EMAS and eco-labelling and other policy tools are in use as well.

**SDI:** How will the new environment tax structure operate?

**MP:** The environmental tax system in Hungary includes a number of different environmental fees and taxes. In addition to the environmental product charge Parliament recently enacted a law in environmental load fees that comes into force in January 2004. The environmental load fee on water, soil and air is based on the 'polluter pays' principle, which is the key principle of EU environmental policy. The polluter pays the fee after all of his emission of pollutants into water, air and soil. It is possible to claim back a part of the fee if pollution control investment is in progress.

We plan to introduce the deposit fee system in the packaging industry next year. There are different draft versions of the deposit system, but the final decision has not yet been made. The major question is whether to keep the voluntary system or to change it to a compulsory one or introduce a mix of both.

The environmental product charge has to be paid by those who import, use or release into the environment, specified products that are considered to represent an environmental load or generate a difficult waste problem. Petrol and other oil products, tyres, cooling apparatuses, coolants, packaging, batteries, diluters and solvents have already been charged, but we plan to charge other consumer goods such as electric and electronic articles and

cars, and we will increase charges of packaging materials.

All of the existing or planned taxes and fees are found already in the EU member states.

**SDI:** What are Hungary's priorities in international environmental cooperation, besides EU accession?

**MP:** The enlargement of the European Union opens new perspectives for Hungarian participation in international environmental cooperation on bilateral, sub-regional and multilateral levels.

Taking into account the geographical location of Hungary, one of our main priorities is the development of cooperation with neighbouring countries. This would focus on trans-boundary issues, with special regard to the enhancement of environmental safety in the region, conservation of natural values, and management of shared water basins. We are ready to share our experiences with the countries that are making preparations for future EU accession. The aim is to achieve environmental cohesion for the Western Balkan region, and to prevent the appearance of new borders on the European ecological map.

It is equally important to participate in existing and new flexible mechanisms of regional and sub regional cooperation – such as the Visegrad4 Group and the Regional Environmental Partnership – and to play an active role in the activities related to the Convention on Cooperation for the Protection and Sustainable Use of the Danube River.

Since the early 1990s, Hungary has made significant progress in the implementation of obligations that come from its being a party to multilateral agreements under the framework of the UN, UNECE, UNEP, and other organisations. Continuing efforts will be made to further improve the environmental performance in this respect. Hungary is interested in the further development of the 'Environment for Europe' process, and in strengthening the European dimensions of implementation of the WSSD outcomes.

#### ABOUT THE AUTHOR

Dr. Miklós Persányi became Hungary's Minister of Environment and Water in May 2003, charged with the task of becoming the 'green conscience' of the government. Before that he was Director in Chief of the Budapest Zoo and Botanical Garden. He also served as president of the European Association of Zoos and Aquaria. In 1989 Dr. Persányi founded the journal Environment and Development. Between 1991 and 1994 he worked as senior environmental specialist for European Bank for Reconstruction and Development where he initiated the programme for the public participation in environmental decision-making in Central and Eastern Europe.

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# Major events: what, when, where?

A vast web of conferences and meetings is constantly being woven. In an effort to provide a brief but informative guide for readers, SDI offers a condensed roundup of some of the major events in the months since our last issue.

**C**OP-9, the **ninth annual ministerial meeting of the 188 Parties to the United Nations Framework Convention on Climate Change (UNFCCC)** took place on 1-12 December 2003 in Milan. The goal of the Convention is to stabilise atmospheric levels of greenhouse gases at safe levels. Miklós Persányi, Hungary's Minister of Environment, served as President (see interview p.10).

Negotiations produced modest progress on a handful of largely technical issues but remained deadlocked on issues relating to the next steps in the international climate effort.

A compromise consensus was reached on the role of carbon sinks in the Clean Development Mechanism (CDM) for which the meeting was dubbed 'forest COP'. There were also decisions on: good practice guidance on land use, land-use change and forestry (LULUCF); and the operation of two funds to assist developing countries, namely the Special Climate Change Fund (SCCF) and the Least Developed Countries (LDC) Fund. There was much discussion on cooperation between developed and developing nations, technology transfer and capacity building.

With official negotiations deadlocked, most progress came in the UNFCCC constituency groups – NGOs, business groups and the academic community. They called for strong action, leadership and future thinking. Practicing what they preached, they presented new research and thinking on future approaches. COP-10 was scheduled for late 2004 in Buenos Aires, Argentina.

The 19th session of the **Global Biodiversity Forum (GBF-19)**: Biodiversity and Prosperity took place on 6-8 February in Kuala Lumpur in conjunction with the **7th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP-7)**. The CBD entered into force on 29 December 1993. It now has 188 Parties, and aims to promote "the conservation of biological diversity, the sustainable use of its components, and the fair and

equitable sharing of benefits arising from the use of genetic resources."

GBF-19 addressed three key issues: livelihoods, poverty, and biodiversity; technology transfer and capacity building with equity; and the value of biodiversity for securing the future. Findings were passed on to COP-7.

The COP aimed to develop concrete measures for the targets set at the 2002 World Summit on Sustainable Development (WSSD). That summit called for a network of global protected areas (PA) and an international regime on access and benefit-sharing (ABS) within the framework of the CBD. The COP adopted decisions on both ABS and PAs, set terms of reference for the ABS Working Group, and established a Working Group on PAs. Delegates called for a global finance mechanism, warning that protected areas are just a paper exercise unless there is finance behind them, and political will for enforcement.

COP-6 had set a target to achieve a significant reduction in the rate of loss of biodiversity by 2010. COP-7 produced a valuable framework for evaluating implementation of that target. The ministerial part of the COP produced the Kuala Lumpur Ministerial Declaration, that commits governments to integrate biodiversity conservation and sustainable use into socio-economic development. COP-8 is set for Brazil in early 2006.

The **2nd World Wind Energy Conference & Renewable Energy Exhibition** that took place in Cape Town on 23-26 November, issued a resolution that outlines the main barrier to renewable energies: "the cost gap caused by enormous subsidies and non-internalised external cost of fossil and nuclear energies." This says that renewable-generated electricity is more expensive, but might not be if the full costs of generation (including climate change and nuclear decommissioning) were taken into account ("internalised") and traditional fuels did not receive subsidies. In our view, this principle of internalising external costs is one of the foundations of green economics, and the driving force behind much progress

for sustainability. All renewables work now leads to Bonn where the **International Conference on Renewable Energies 2004** will be held in June 2004.

The **Commonwealth Heads of Government meeting (CHOGM)** took place in Abuja, Nigeria, from 5 to 8 December 2003. It followed the Commonwealth Business Forum week, which the Commonwealth Business Council (CBC) organisers called the biggest summit on sustainable development since the World Summit in Johannesburg in 2002.

The summit aimed to move ahead with more practical sustainable development policies. It also functioned as a major international business event to enhance trade and investment in the Commonwealth. The Heads of Government meeting had the theme: 'Development and Democracy: Partnership for Peace and Prosperity'. It was dominated by the question of whether or not to expel Zimbabwe from the Commonwealth due to the continued human rights abuses of the Mugabe regime. Zimbabwe, not present at the meeting, announced it was leaving the Commonwealth. The meeting also produced the Abuja Communiqué, the Aso Rock Commonwealth Declaration on the CHOGM Theme, and the Aso Rock Statement on Multilateral Trade.

**Barbados+10** – the ten-year review of implementation of the Barbados Programme of Action (BPOA) on the sustainable development of small island developing states (SIDS) – is well underway. The final meeting will be held in Mauritius from 28 August to 3 September 2004.

BPOA is a 14-point programme that identifies priority areas and indicates specific actions that are necessary to address the special challenges faced by SIDS, and aims at their sustainable development.

There are 41 SIDS, who often work together through the Alliance of Small Island States (AOSIS. See article p.26).



Other SIDS groupings include: Atlantic, Indian Ocean, Mediterranean and the South China Sea (AIMS) Island countries, and the Caribbean.

Action under BPOA is being taken at national, regional and global level. Three regional meetings have been held and their reports were presented to the **inter-regional SIDS preparatory meeting** on 26-30 January in Nassau.

Delegates considered and adopted the Nassau Declaration, and the AOSIS Strategy Paper for the Further Implementation of the BPOA. The former calls on the World Trade Organisation (WTO) to recognise the special case of SIDS – their inability to participate effectively in multilateral trade negotiations due to their weakening economic performance. The latter identifies new and emerging issues that have surfaced since 1994 and that continue to hinder the BPOA implementation.

At the global level there will be a SIDS preparatory meeting for Barbados +10 on 14-16 April in New York. The recommendations from that will go to the 12th Session of the **UN Commission on Sustainable Development (CSD-12)** – the biggest event on the sustainable development horizon – and are then presented at Mauritius.

CSD-12 meets at UN Headquarters on 14-30 April. For the first three days it serves as a preparatory meeting for Barbados+10 (see above), and the following two weeks serve as the CSD-12 Review Session. The CSD-12 thematic cluster includes water, sanitation and human settlements. There were five regional implementation meetings between October 2003 and January 2004.

The annual meeting of the **World Economic Forum (WEF)** took place on 21-25 January in Davos, Switzerland. The WEF describes itself as providing a collaborative framework for the world's leaders to address global issues, engaging particularly its corporate members in global citizenship. The WEF's own Global Governance Initiative issued its annual report at the Forum. The experts and leaders who contributed concluded that the world community was failing to make more than a third of the effort necessary to meet the social and environmental goals that it set itself in the Millennium Declaration. A parallel meeting, **Public Eye on Davos**, called for the creation of global social justice

and an environmentally sustainable world economy in contrast to the current economic model promoted by the WEF.

The **World Social Forum (WSF)** in Mumbai, India, on 16-21 January 2004 provided further counterpoint to WEF. Nearly 100,000 people turned out for the event that seeks to bring activist groups together to develop alternatives to the economic policies pursued by wealthy nations.

Telecommunication regulators from more than 80 countries used their **4th annual Global Symposium for Regulators (GSR)** hosted by the International Telecommunication Union (ITU) in Geneva on 8-9 December 2003 to deliver the message to world leaders that the digital divide can be closed; and in 'GSR Universal Access Best Practice Guidelines' they identified the steps necessary to close it. They called for market opening for greater competition, and identified regulations and practices needed to promote universal access to ICT services.

The regulator's document was delivered to world leaders at the first **World Summit on the Information Society (WSIS)** in Geneva on 10-12 December. The second phase of the summit will take place in Tunisia from 16-18 November 2005.

A Workshop on **Governance for the Implementation of the Outcomes from the WSSD in Countries with Economies in Transition** took place in Istanbul on 16-18 September. Countries in transition face the challenge of making their public institutions fully equipped to achieve the goal of sustainable development. For that purpose, it is necessary to overcome sector-based approaches and to proceed with an integrated economic, social and environmental approach. The meeting report will be presented to CSD-12.

At the **15th General Assembly of the World Tourism Organisation (WTO)** in Beijing, China on 20-23 October 2003, the organisation decided to transform the WTO into a specialised agency of the United Nations. The UN General Assembly approved the decision on 7 November 2003. Delegates also supported 'Sustainable Tourism – Eliminating Poverty' initiative, a joint project with UNCTAD to encourage sustainable tourism that aims at alleviating poverty.

**Global Conference on Oceans, Coasts, and Islands** in Paris, 12-14 November, organised by the Global Forum on Oceans, Coasts, and Islands was concerned with implementation of

the commitments made at WSSD, with the goal of sustainable development.

The **Youth, Development and Peace conference** on 15-16 September 2003 in Paris, considered the role of youth in peace and development and identified opportunities for cooperation between youth organisations and the World Bank. The four priority areas for cooperation addressed were HIV/AIDS and risky behaviours, education for peace, conflict prevention and resolution, and youth employment.

Scientists met at **UNEP headquarters** on 12-13 January to pin point "knowledge gaps" to enable better forecasting of the impacts of human actions on the environment. The idea came from the UNEP Governing Council Forum in Cartagena in February 2002 where ministers noted the increasing complexity of environmental degradation and said it required an enhanced capacity for scientific assessment, monitoring and early warning.

"Sustaining Value – A Meeting on Finance and Sustainability" was the theme of UNEP's **Finance Initiative 2003 Global Roundtable** 20-21 October 2003 in Tokyo. The topic areas included finance of sustainability, reporting sustainability and insuring sustainability. UNEP issued a conference statement that containing a statement of the role of financial institutions in sustainability; and the Tokyo Principles towards a sustainable society.

The **Pan-African Implementation and Partnership Conference on Water** on 8-13 December in Addis Ababa was concerned with implementation of a number of water targets for Africa, and ended up with an action plan. The agencies present set about determining how to implement the many water targets for Africa. The NEPAD secretariat prepared a portfolio of projects as the core of a plan of action. The plan reaffirms the commitments of African countries, the international community and UN agencies to meet the targets. The African Water Facility was also launched, a mechanism for African governments and sub-regional bodies to ensure investment support for water projects.





## Commonwealth Consultative Group on Environment

Janet Strachan, Chief Programme Officer, Commonwealth Secretariat

On the 28th March 2004, Commonwealth Environment Ministers will meet as the Commonwealth Consultative Group on Environment (CCGE), on the eve of the UNEP Global Ministerial Environment Forum/Special Session of the Governing Council in Korea. The Group was established as the Commonwealth's primary forum for consultations on environment and sustainable development. The CCGE has met since 1993 to support implementation of the agreements made at the United Nations Conference on Environment and Development – the Earth Summit – held in Rio de Janeiro in 1992. As with other Commonwealth forums, the exchanges at CCGE are relatively informal and provide an opportunity for Ministers to explore issues of common concern.

This year, Ministers focus on two issues that are at the heart of the international agenda on sustainable development in the next two years. Firstly, they will discuss their experiences in implementing partnerships in the areas of water, sanitation, human settlements and waste management. Com-Habitat is a Commonwealth partnership that is promoting implementation of the United Nations' agenda on human settlements (the Habitat agenda). The Commonwealth partnership brings together governments, professionals, local government and civil society to provide services for the poor. The water, sanitation, human settlements and waste management sectors are also the focus of discussions both at UNEP's meetings in Korea and the UN Commission on Sustainable Development during its 2004/5 programme of work, starting with its 12th session in New York in April. Secondly, they will examine Commonwealth priority concerns for a major International Meeting which will be held in Mauritius in August 2004 to review the 1994 Barbados Programme of Action on the Sustainable Development of Small Island Developing States (SIDS). Small states are a big issue for the Commonwealth, since 32 of its 53 member states belong to this group.

The twin goals of sustainable development and the alleviation of poverty stand at the centre of the Commonwealth Secretariat's work and the fundamental principles that all members of the Commonwealth hold in common. Achieving them is not a matter of taking discrete actions on a range of development concerns such as trade, soil erosion, health care or schooling. It is about finding integrated approaches that address potentially multiple impacts and benefits across all three pillars of sustainable development (social, economic and environmental) to "find new ways of balancing equity, economics and ecology". With this in mind, the Commonwealth Secretariat has played an active role in three key international negotiations that have set the development agenda for the next decade by addressing critical concerns on trade, finance and sustainable development: the WTO Doha Ministerial Meeting (December 2001); the Financing for Development Summit in Monterrey (March 2002); and the World Summit on Sustainable Development (WSSD) in Johannesburg (September 2002). It advocates the concerns of its member states, supports consensus building and integrated policy approach, and provides practical support (technical assistance and capacity building) through the Commonwealth Fund for Technical Co-operation.

Papers and background information about the CCGE can be downloaded from: [www.thecommonwealth.org](http://www.thecommonwealth.org), following the links from 'What We Do' to 'Environment' and 'meetings of Commonwealth Environment Ministers'.

Commonwealth



# Commonwealth



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The Commonwealth Consultative Group on Environment meeting in March 2004 brings together Ministers to share experiences and discuss action for the environment. New Zealand is chairing the meeting and its Minister writes here about the importance of the Commonwealth grouping and the aims for the meeting. The Commonwealth Secretariat has supported the international review process of Small Island Developing States that culminates this year in a meeting in Mauritius. The chairman of the Alliance of Small Island States (AOSIS) explains some of the vulnerabilities and resiliences of island states. Three writers from different areas of the Commonwealth expand on the theme to explain how their regions are learning to adapt to climate change. On a different note, we hear how in the jungle of Guyana, the Commonwealth's flagship environment project, the Iwokrama Centre, is operating development projects amongst the natural treasures of the forest.



# Pragmatism, partnership and the New Zealand Programme of Action

Hon. Marian Hobbs, Minister for the Environment, New Zealand

Sustainable Development is a complex concept. International forums such as the Commission on Sustainable Development (CSD) have produced lofty ideas and principles that countries can aspire to in their policy settings. It is important to keep talking about how to move these global issues forward at meetings such as the one I am chairing soon of Commonwealth Environment Ministers, and it is equally important to take practical steps. New Zealand has put a programme of action in place that establishes a vision for the country and sets clear objectives. This is complemented by the provision of sustainable aid programmes in the Pacific – our neighbourhood.

On Sunday 28 March, in Jeju, Korea, I will chair the 10th meeting of Commonwealth Environment Ministers. The meeting precedes by one day the United Nations Environment Programme's (UNEP) annual Global Ministerial Environment Forum. Together, both meetings provide a great opportunity for frank and open debate about the approach we are taking – individually and multilaterally – towards our shared sustainable development goals.

I was delighted to be asked to chair this year's Commonwealth Consultative Group on Environment (CCGE), because the Commonwealth's unique composition provides a great forum to canvas a very broad range of views. I recognise how valuable this Commonwealth 'caucus' is as a way of preparing for the subsequent UNEP meeting – and how useful the Commonwealth structure is in bringing together developed and developing countries in pursuit of shared objectives.

## Water, waste and sanitation

As Chair of the CCGE in 2004, New Zealand chose this year's themes – among them water, waste and sanitation. We chose these topics as they are not only relevant to the UNEP meeting, but reflect areas where New Zealand's domestic experience is likely to be of particular interest to Commonwealth partners. There is also much to be learned from our partners who can share different experiences in these areas.

This will not be the first important global environment forum that I have attended. In 2002, I attended the World Summit on Sustainable Development (WSSD) in Johannesburg. New Zealand's expectations of the WSSD were high: we wanted concrete steps made to implement the goals established



Hon. Marian Hobbs

by previous environmental summits.

The New Zealand Government signed up to those targets and actions, and now we want to put those words into practice.

The concept of partnership is at the heart of New Zealand's sustainable development approach. Government can provide the wheels, but civil society must be the engine

The World Summit was also the 10th meeting of the Commission for Sustainable Development (CSD) – the body specifically responsible for making sustainable development happen. After Johannesburg, the Commission reshaped its approach to the implementation of broader sustainable development goals. The areas of priority agreed at Johannesburg

were broken down by theme into more manageable bite-sized pieces. The Commission will review the first cluster from the World Summit's plan of action labelled 'water, sanitation and human settlements', this year. Key questions will include: How are we doing in achieving what we all committed to? And, what obstacles do we need to shift to make the World Summit aspirations a reality?

Hence, water, waste and sanitation. We wanted to echo the CSD's approach of looking at a cluster of related issues. We hope this will make the sometimes-monolithic goal of sustainable development seem both manageable and – in the long run – attainable. There is nothing to be gained by letting sustainable development become the elephant in the living room – a problem so large and intractable that it ends up being ignored. A pragmatic, step-by-step approach is vital, and ministerial meetings that are light on rhetoric and strong on practical experience sharing and debate are an important part of that process.

## Implementation approach

New Zealand takes the idea of sustainable development seriously.

Post WSSD, we have developed our own, domestic Sustainable Development Programme of Action. But we also try to be a good neighbour and partner by offering to assist Pacific Island countries on their own path to sustainable development.

What does this mean in practice for our approach? Meaningful implementation of the sustainable development approach agreed at Johannesburg will help New Zealand find solutions that benefit our environment, our economy and our increasingly diverse society. For us, it is about how we develop – the quality of development if you like.



Achieving sustainable development outcomes calls for a new way of thinking and working. It requires us to look after people, by taking a long-term view that accounts for the social, economic, environmental and cultural effects of our decisions. It also encourages participation and partnerships, both domestically and internationally.

The concept of partnership is at the heart of New Zealand's sustainable development approach. Our government recognises that it cannot achieve sustainable development on its own: government can provide the wheels, but civil society must be the engine. We need to engage with sectors and enterprises that have a stake in the issues to work together towards a common future. We also want to share our experiences and learn from other countries. Partnerships mean combined efforts and resources, shared understanding and information and, ultimately make for better outcomes.

### Programme of Action

For New Zealand, developing a programme for achieving sustainable development forced us to focus on the future we want for our environment and our children and to determine what steps we needed to safeguard that future.

New Zealand's Sustainable Development Programme of Action is a government initiative. It comes from recognition that government must lead the way in terms of sustainability. We need to get our own house in order. It is not, however, intended to be set in stone. Rather, it is a first step that will be updated with new initiatives as appropriate. The document does not traverse all that the government is doing. Instead, it poses some key issues and an approach to strengthen our decision making so that the concept of sustainability is infused into policy development.

The Programme of Action provides a vision for New Zealand and a set of guiding principles for policy and decision-making across the government sector. These principles require government to take account of the economic, social, environmental, and cultural consequences of its decisions (see Box 1).

The Programme of Action focuses initially on detailed actions and outcomes in four key areas: quality and allocation of freshwater; energy; sustainable cities and investing in child and youth development.

Why these areas? Unless these issues are given appropriate attention, they will



Figure 1. Fish are released into ponds in East Timor. Chicken pens are built over the ponds so the waste becomes fish food and the pond water is used to irrigate agricultural land.

eventually impede New Zealand's long-term sustainable development. Clean abundant water has long been a key element of economic prosperity. We also need to ensure the delivery of energy services to all consumers efficiently, fairly, reliably and sustainably. Cities are the engines of economic growth, where 85% of our people live and work. They must support social wellbeing, quality of life and cultural identities. Ensuring the wellbeing of children and young people benefits New Zealand as a whole, by guaranteeing a skilled

workforce, healthy population and capable parents of the next generation.

### How are we doing?

The Programme of Action is celebrating its first anniversary. We've taken some significant steps, but there's still a long way to go. One of the most pleasing developments has been the emergence of clear signs across the government sector that the sustainable development principles are being considered and applied in decision-making. This can be attributed in part

#### BOX 1:

##### **Sustainable development principles for policy and decision-making**

The New Zealand government recognises that its decisions should ensure the wellbeing of current and future generations. It will take account of the social, economic, environmental, and cultural consequences of its decision by:

- Considering the long-term implications of decisions;
- Seeking innovative solutions that are mutually reinforcing, rather than accepting that gain in one area will necessarily be achieved at the expense of another;
- Using the best information available to support decision making;
- Addressing risks and uncertainty when making choices and taking a precautionary approach when making decisions that may cause serious or irreversible damage;
- Working in partnership with local government and other sectors and encouraging transparent and participatory processes;
- Considering the implications of decisions from a global as well as a New Zealand perspective;
- Decoupling economic growth from pressures on the environment;
- Respecting environmental limits, protecting ecosystems and promoting the integrated management of land, water and living resources;
- Working in partnership with appropriate Maori authorities to empower Maori in development decisions that affect them; and
- Respecting human rights, the rule of law and cultural diversity.





Figure 2. Lake Taupo, New Zealand's largest lake, where the government is working with the community to improve water quality by reducing nitrogen runoff from the land.

to our efforts to infuse these new ways of thinking, but we are grateful for the enthusiastic way in which people have adopted the ideas. There has also been progress in all of the key areas identified in the Programme of Action.

## Water

Freshwater allocation and use, water quality issues, and water bodies of national importance are fundamental elements for New Zealand's sustainable development. Our goal is to provide

adequate, clean freshwater that is available for all.

In the last year a work programme has been developed that will address the issues of allocation and use, and managing the impacts of land use on water quality. We will also identify water bodies of national importance (see Box 2 for work on Waitaki River and Lake Taupo). Local government has been involved in the programme. In addition, we have established a Reference Group for Maori and a Reference Group for

### BOX 2:

#### Information on Work being done in Waitaki and Lake Taupo

##### Waitaki River: a way forward

In December, the New Zealand Government introduced special legislation aimed at improving the decision-making process for Waitaki River water use in the Canterbury Region of the South Island.

The Waitaki River is a valuable resource, prized for irrigation and renewable energy, and for its natural and community values. For Ngai Tahu – the local Maori tribe – the river is a defining feature of who they are, as a people and as individuals.

The Government stepped in last year by calling in a large number of resource consent applications for the Project Aqua hydro-electricity scheme and irrigation projects. There was a concern that the existing process would not provide the best outcomes for all concerned. The new process will allow competing uses to be considered together on their merits, and against a new water allocation framework.

##### Lake Taupo

The government is committing up to \$36.7 million to a joint fund to reduce nitrogen inputs to Lake Taupo, with the aim of protecting water quality and clarity of one of New Zealand's most iconic lakes.

Lake Taupo, New Zealand's largest, is important nationally, regionally and locally for its environmental, social, economic and cultural values. The lake's high water quality is a vital component of these values, but concerns about changes in water quality are growing.

The land use in the lake catchment is mainly a mix of native vegetation, pine plantation and pastoral farming. The relatively higher nitrogen losses from farms have been identified by Environment Waikato as the main cause for declining water quality. The Government believes that the significant funding it is providing will lead to proper protection for the lake and improved water quality in the long-term.

people with an interest in water management. Interests represented on the group include environment, irrigation, hydropower, horticulture, forestry and recreation. We are now seeking to make contact with work in other countries to share experiences.

We are also providing considerable assistance with water related issues as part of the New Zealand Agency for International Development's (NZAID's) international development assistance programme (see Box 3).

## Energy

The government is committed to a sustainable and efficient energy future for New Zealand. Renewable Energy already makes up 29% of our total consumer energy – one of the highest levels in the world. There is, however, always room for improvement. In 2001 the government released the National Energy Efficiency and Conservation Strategy. It has two high level targets for achievement by 2012: economy-wide energy efficiency improvement of at least 20%, and 30PJ of additional consumer energy from renewable sources.

The supply and use of energy has environmental consequences everywhere. Local effects from energy production in New Zealand include: poor air quality and localised smog from wood and coal fires and motor vehicles; flooding land for hydroelectricity generation; geothermal generation affecting nearby geysers and waste heat from thermal power generation plants.

More recently, the threat of climate change has pushed energy to a central position in international debate. The questions are now about the energy we need, the long-term effects of how we now use energy, and how we will change to more sustainable energy use.

Sustainable development in energy terms for New Zealand means managing a transition from the fossil fuels that we use now to lower carbon fuels, more efficient technologies and renewable energy.

In order to improve policy coordination, government agencies are developing a process to develop an overall framework to guide thinking on energy policy issues. This framework is expected to add value by improving coordination between policy areas and by ensuring that the overall approach supports wider sustainable development objectives.

## Sustainable cities

Cities are essential places to achieve sustainable development because that is where most New Zealanders live. We



want people to have exciting and prosperous workplaces, liveable communities and a clean, healthy environment. The following key outcomes for cities have been identified under the sustainable development programme of action:

- Cities as centres of innovation and economic growth; and
- Liveable cities that support social wellbeing, quality of life and cultural identities.

We are working to develop solutions for all New Zealand, but are testing our policies first on the country's largest urban area, the greater Auckland region. There are a number of projects underway in Auckland led jointly by central and local government. They focus on economic development, transport, governance arrangements, social and cultural issues, and urban form and design. We hope to have them completed by June 2006.

At the national level we are working on two key documents to provide standards and direction in terms of urban form and design – the New Zealand Urban Design Protocol and an Urban Affairs Strategy. The design protocol is a key action by government to address how good urban design can better contribute to the development of liveable cities and what practical steps can be made to design a better future for New Zealand's urban environments. The strategy will be a statement of strategic direction for urban affairs that will prioritise work and crystallise some main themes for the government.

## Child and youth development

How we value and look after our children and young people is an important reflection on the state of our society. It is also a predictor of how we will fare in the future.

The Programme of Action seeks to achieve the following outcomes for all children and young people: supportive families; adequate material living standards; good health; success at all stages of education and transition into employment; and lives free from violence and crime.

Much of the work in this area to date has been theoretical. We have, however, developed an investment framework and defined key criteria for prioritising investments. We are operating on the principles that policy should be evidence based and that solutions must work in reality and be tested.

## Infusing

As well as the four target areas, the Programme also outlines an approach to strengthen our decision making so that the concept of sustainability is infused into all policy development.

## The Programme of Action provides a vision for New Zealand and a set of guiding principles for policy and decision-making across the government sector

This approach is all about putting the principles developed into practice. Three infusing projects are underway looking at central government policy tools and processes, sharing information ('winning hearts and minds'), and a framework for indicators and reporting. To improve linkages and coordination across government an inter-departmental intranet is also being developed.

## Pacific sustainability

We also want to help other countries develop sustainable policies and introduce projects that help to secure their futures, especially in our neighbourhood. NZAID supports a wide range of initiatives, which contribute to commitments within the

themes of water, sanitation and human settlements. This support includes significant bilateral projects and the core funding of regional agencies in the Pacific charged with meeting needs in these areas, in particular the South Pacific Applied Geoscience Commission (SOPAC), the South Pacific Regional Environment Programme (SPREP) and the Secretariat of the Pacific Community (SPC). New Zealand provides between 15% (SPREP) and 38% (SOPAC) of the baseline funding for these organisations. In addition, NZAID provides funding which each agency uses for specific projects within their mandates (see below). Currently these funds range from NZ\$1,000,000 (SPC) to NZ\$350,000 (SPREP) per annum.

SOPAC works in the area of sustainable water resources and sanitation, SPREP in the areas of waste management and pollution control, and SPC in sustainable land use and development, health and population issues. These agencies support member countries by providing capacity building, knowledge management, technical and policy advice, advocacy of Pacific issues at international levels, as well as the development of appropriate technologies and scientific research. Details of the specific projects being undertaken by these agencies can be found on their web sites.

### BOX 3:

#### Examples of Water Related NZAID Projects in the Pacific

##### Village water supply upgrade, Tonga

NZAID has committed \$2,140,000 between 2003-2005 to support a major upgrade of the water supply systems to three large villages on Tonga's main island and to improving the skills of the Tongan Health Ministry's water inspectors and village water committees in overseeing and maintaining the systems. NZAID has also agreed to allocate about \$2,000,000 over 2004-2007 to upgrade the water supply system for the 5,000 inhabitants of the nearby island of 'Eua by improving stream-fed water intakes and the reticulation system, and installing water treatment facilities.

##### Village water supply, Vanuatu

NZAID has been supporting a programme of assistance to the Water Resource Sector in Vanuatu for several years. The central component of this assistance is a Village Water supplies project, which will come to completion in 2005. NZAID has committed \$800,000 to complete the project, the objective of which is to assist the local authorities to improve water supply delivery and coverage, protection and monitoring of water quality and community skills to maintain water supplies, primarily in the rural sector of Vanuatu.

##### Stream health monitoring kits, Fiji

NZAID provided \$215,000 to fund this project, the objectives of which are to allow communities to quantify and monitor stream health, raise the awareness of the value of freshwater resources and increase an understanding of how land use activities impinge on freshwater resources.



In addition to this, a significant number of small-scale community initiatives in water and sanitation are supported by NZAID through small grant schemes and community development support, primarily in the South East Asian and Pacific Region (see Box 3).

NZAID has been an active party in supporting the establishment of the Pacific WSSD Type II Partnership Initiatives in Water and Sanitation, Sustainable Land Resources Development, and Waste Management and Capacity building for the Sustainable Use and Management of Natural Resources. To date only the Water and Sanitation partnership has been formally established, components of which NZAID is funding. NZAID will continue to engage in this process, and consider financial support to initiatives as they come on stream.

### Commonwealth Consultative Group on the Environment

The CCGE itself does not have a mandate to determine or fund the Commonwealth Secretariat's activities in the environmental arena. But I would argue that the CCGE continues to play an important role, particularly for Pacific countries. Each year the CCGE meeting affords an excellent opportunity for engagement on specific global issues in a forum that transcends usual geopolitical blocs.

When we are talking about partnership between developed and developing countries, I think that it would be naïve to downplay the importance of getting heads together to share experiences. In the environmental context, the economic gap between wealthy and poor countries is not necessarily a reliable benchmark for environmental integrity – nor for a greater success rate in handling the many obstacles that we each face in our pursuit of sustainable development at a national level. The CCGE is not, perhaps, an agenda-setting forum, but I would argue that efforts to align the forum ever more closely with the themes considered by UNEP and by the CSD will not be wasted. Few ties bind us as closely as our shared dependence on the global environment, and it is in this collegial spirit of international partnership that I hope to see the CCGE continue to make a useful contribution to environmental debate.

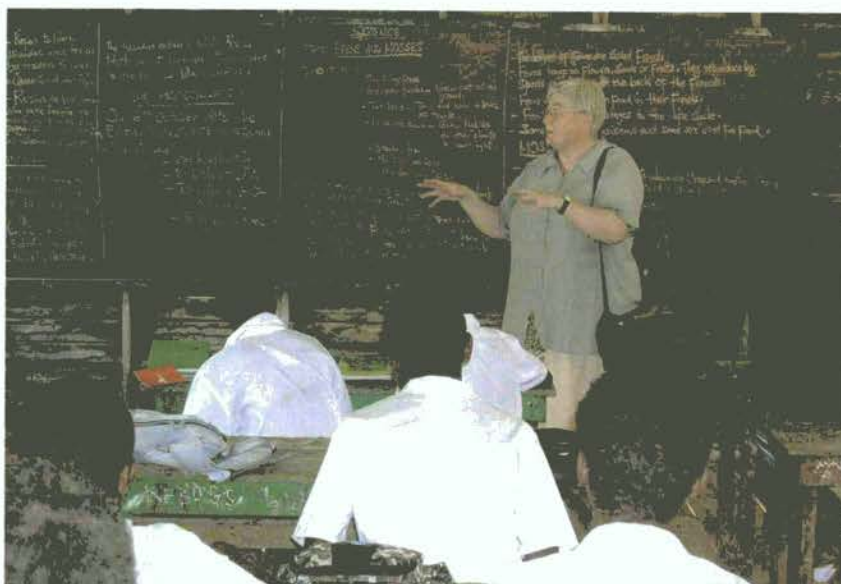


Figure 3. The author visits a Solomon Islands school. NZAID works in partnership with its neighbours to manage resources in a sustainable fashion.

### Conclusion

New Zealand has taken the view that we have an obligation, shared with other countries, to improve the quality

Each year the CCGE  
meeting affords an excellent  
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that transcends usual  
geopolitical blocs

of life of our people now and in the future. A key part of this is to manage use of our resources and our environment in a more sustainable

fashion. We have put some practical programmes in place to try and achieve this. We also need to look beyond ourselves, and to help others to achieve their goals, particularly those without the means to help themselves effectively. We see partnerships at all levels, from communities to governments, as a key ingredient of a sustainable future. We have a job ahead of us, but I am confident we can work together to ensure the wellbeing of future generations.

#### ABOUT THE AUTHOR

Marian Hobbs holds the portfolios of Environment, Urban Affairs, Disarmament and Arms Control, the National Library and Archives NZ. As Associate Minister of Foreign Affairs she is also responsible for Official Development Assistance. Adult and Community Education comes with her role as Associate Minister of Education. Marian is also Associate Minister for Biosecurity. She has been involved in education and social service all her adult life. A former Principal of Avonside Girls' High School, Christchurch, she entered Parliament as a Labour List member in 1996, won the Wellington Central seat in 1999, trebled her majority in 2002 and was re-elected to the Cabinet by her Labour Caucus colleagues.

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# Sustainable human development in action: The Iwokrama Forest in Guyana

Dr. Graham Watkins, Iwokrama International Centre, Guyana

The Iwokrama Programme is a partnership between the Commonwealth and the Government and people of Guyana. Iwokrama brings together local people, national and international interests in a variety of businesses in the forest. The idea of Iwokrama was born during the 1989 Commonwealth Heads of Government Meeting, and has grown to be the Commonwealth's Flagship environment project. It is a working example of developing partnerships for effective natural resource management and sustainable human development.

The Iwokrama Forest sits in the heart of Guyana, neighbouring the Rupununi Wetlands. Together, these two areas boast the highest recorded number of species of fish (over 400) and bats (over 90) in the world. Iwokrama and the Rupununi are also home to healthy populations of some of the world's largest and most endangered species

including the Harpy Eagle, the Jaguar, the Giant Anteater, the Giant River Otter, the Arapaima, the Anaconda, the Black Caiman, the Giant River Turtle and the Bushmaster.

The million hectares of the Iwokrama Forest and Rupununi wetlands are an extraordinary ecosystem. They encompass a range of habitats including over 200 lakes, braided rivers flowing over volcanic dykes, 1,000 metre mountains, lowland tropical rain forests, palm forests, and seasonally flooded forests and savannahs. The area is also the homeland of the Makushi people who continue to live in the area and use the forest and wetland resources from the area. The Makushi people are perhaps best known for Curare (a medical muscle relaxant) and a lifestyle based on the staple Cassava.

## Loss of tropical forests

The Iwokrama Forest sits in this extraordinary social and ecological environment. The forest is managed by the Iwokrama Centre, which exists as a result of partnership between the Guyanese people and the Commonwealth. The Iwokrama Forest is managed to show how tropical rain forests can be used and conserved at the same time. Substantial global attention has been focused on the plight of tropical rain forests being destroyed for their timber or mineral resources or to access land for agriculture. Tropical deforestation rates have not slowed

substantially in the last 20 years and if we continue at this rate, all the world's tropical forests will be gone within 100 years. The loss of tropical forests will bring global climate change and the extinction of the majority of the world's plant and animal species and the consequent loss of these potential values to humanity.

Maintenance of forests through effective management is a complex social and economic problem. Most tropical deforestation results from business development without concern for the ecological and social costs of development. From the perspective of the developing nations

(where most of the remaining tropical rain forest is found), businesses bring resources that reduce poverty and contribute to national development. Therefore, maintenance of forests through effective management is a complex social and economic problem.

Unfortunately, there is growing disenchantment with global conservation processes that, despite the rhetoric, focus on protection rather than addressing poverty and national development. Protected areas presently cover an estimated 700 million hectares of the 1.7 billion hectares of developing country tropical rain forests. Unfortunately, it is also clear that many protected areas do not effectively recognise poverty or indigenous peoples' concerns. A major challenge for global conservation is the development of management systems based on the synergies between local, national and international concerns relating to tropical rain forests.

## Forests and business

At the same time, it is critical to recognise that the major cause of



Figure 1. Iwokrama and Guyana, South America.

tropical deforestation is business development without concern for ecological, social and cultural costs. Private sector capital flows to the forest sector are estimated as between US\$8 and \$10 billion per year for plantations, logging and downstream processing of timber. Primary forest product exports

from developing nations are worth up to \$28 billion every year; these exports constitute not more than 10% of the total usage of forest products, meaning a conservative estimate of private sector returns from forests would be around \$300 billion annually. This figure does not include forest areas that have been converted to agriculture or the returns from minerals and other products that come from forests.

A major consequence of this 'Juggernaut' of business has been the marginalisation of local communities, in particular indigenous peoples, as business developers enter into new forest areas. Indigenous people own or



Photo credit: Fotonatura



Figure 2. Jaguar on the road in the Iwokrama Forest; Jaguars are the first animals to disappear as hunters encroach into forests along roads.

manage nearly 22% of the remaining tropical rain forests; a percentage that has doubled in the last ten years and is likely to increase in the coming ten years. There are two corollaries of this – the first is that indigenous people are in the firing line of future forest destruction as their homes and livelihoods will be destroyed and the second is that any attempt at effective management of tropical forests will require the full involvement of indigenous people.

Private philanthropy, international development assistance, and the Global Environment Facility may provide up to \$2 billion annually for conservation and sustainable forest management. Participants at the 2003 World Parks Congress bemoaned the shortage of financial support for protected areas globally, and noted that conservation was not considered a priority, tourism revenues were not channelled back into protected areas, donors were not supporting protected areas, and many protected areas lacked the necessary

business acumen and institutional mechanisms to become financially sustainable. All in all, protected areas as presently conceived will not stem the destruction of tropical forests because they do not address local and national development needs; the private sector will continue to degrade the tropical forest matrix until all that remains will be poorly funded islands of protected areas.

## Iwokrama

The Iwokrama International Centre for Rain Forest Conservation and Development was established in Guyana to deal with this problem – how can tropical rain forests be conserved and sustainably utilised so as to ensure ecological, social and economic benefits to the local, national and international communities. The Iwokrama Centre is a partnership between the Government of Guyana and the international community represented by the Commonwealth. The Centre results from the offer by Guyana to provide one million acres of tropical forest to serve as a practical demonstration site for multiple forest use and conservation. This area – the Iwokrama Forest – is situated in central Guyana and is part of one of the four remaining pristine tropical forest areas in the world – the Guiana Shield. Guyana is one of the poorest countries in the world, but has abundant natural forests and very low population densities. The majority of the users of

the Iwokrama Forest are Makushi, Wapishana, Patamona and Arawak Amerindians.

Iwokrama is a protected area with a difference. It focuses on involving people in the conservation and sustainable use of the forest. Iwokrama works collaboratively with local indigenous people, but also works with national and international private sector to ensure that the forest contributes to achieving local and national development goals. Iwokrama also focuses on learning by doing –

Success rests on the ownership and commitment of local people and the combined skills of specialists and communities

business partnerships (local community, private sector and Iwokrama) to create forest enterprises in timber, tourism and forest management.

The hope is that Iwokrama can become a model for business development that results in the conservation of tropical rain forests; and, through local community partnerships ensures the cultural and social sustainability of the new businesses.

## Business challenges

Iwokrama focuses on developing sustainable business by considering all of the values in tropical forests including potential and actual products and the various ecological, social and cultural services that tropical rain forests provide. Iwokrama also ensures that benefits are effectively shared among partners, and has recently finalised intellectual property rights and benefit-sharing protocols and agreements



Figure 3. A platform on the Iwokrama Canopy Walkway, the first tourism walkway in the Guianas.



Figure 4. Scarlet macaw nesting along the road that bisects the Iwokrama Forest – such birds are a major draw for ecotourism in Iwokrama.

Photo credit: Fotonatura



to this end. The Centre is now working on developing model institutional structures and agreements that ensure the long-term viability of partnerships. Iwokrama and the local communities have already developed incipient businesses based on green and socially responsible niche markets in eco-tourism, aquarium fish, conservation and training.

The vision for Iwokrama is to demonstrate how to conserve and use tropical forests sustainably to give local, national, and international benefits. This vision arose at a time when tropical rain forests were being degraded at an alarming rate by the rapacious nature of big businesses combined with poor governance. Fourteen years later, tropical rain forest degradation continues unabated and the role of Iwokrama remains as pivotal as it was when the concept arose. It is not a simple task to find ways of developing tropical forests to meet commercial, local community, and the forest's needs. The major lesson is that success rests on the ownership and commitment of local people and the combined skills of specialists and communities. The Centre has therefore fully engaged with local communities and national agencies to enhance collective capacity to manage the Iwokrama Forest. The Centre has been building these relationships knowing that business as usual – the quick money approach – is an illusion of success that will not serve the local people, the country and the forests of the world. Iwokrama is an international project whose lessons are firmly grounded in the reality of the people who live in forests and whose entire economies rest on the fate of their forests.

### A growing example

For the future, there is growing interest in the Iwokrama Forest as a model forest management area. There is strong

local community, Guyanese and international support for Iwokrama; the ideas and concepts of equity and social, economic, and ecological sustainability that underlie Iwokrama are those that have eluded development in most

Iwokrama's accomplishments have been achieved because of the vision, foresight and persistence of individuals and the support from numerous governments and institutions

parts of the world. Iwokrama's accomplishments have been achieved because of the vision, foresight and persistence of individuals and the support from numerous governments and institutions including especially the founding partners: the Government and people of Guyana for their generous contribution of the Iwokrama site, and

the Commonwealth Secretariat for its patronage and contribution of expertise. The United Nations Development Programme (UNDP), using Global Environmental Facility funds, implemented a project to support the early institutional development of Iwokrama. The Overseas Development Administration of the United Kingdom, the Commonwealth Fund for Technical Cooperation (CFTC) and the United States Agency for International Development (USAID) contributed funds and technical assistance in the early years. The Canadian International Development Research Centre (IDRC) was also a partner to strengthen Iwokrama as an institution and to assist with communication. Principal recent donors include the British Department for International Development (DFID), the European Commission (EC), the Canadian International Development Agency (CIDA) and the International Tropical Timber Organisation (ITTO).

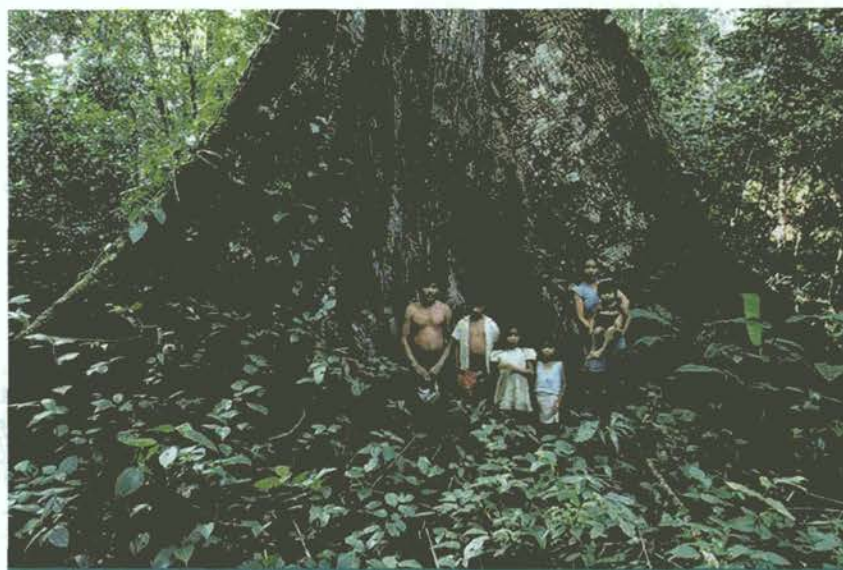


Figure 6. An Amerindian Family in the shade of a Mora tree.

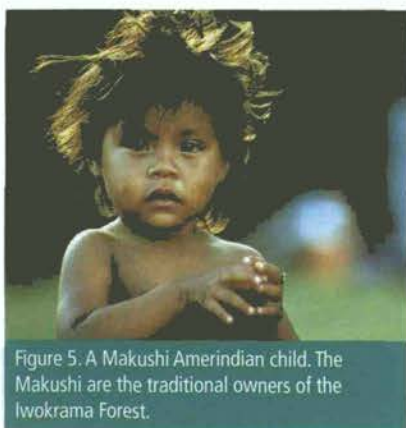


Figure 5. A Makushi Amerindian child. The Makushi are the traditional owners of the Iwokrama Forest.

#### ABOUT THE AUTHOR



Dr. Graham Watkins was born in Guyana. He has been Director-General of the Iwokrama Centre since March 2003 before which he was senior wildlife biologist from 1998. From 1996 he

taught at the University of Guyana while managing faunal surveys of the Iwokrama Forest. He has fifteen years experience working in natural resource management and utilisation programmes, including ecotourism, aquaculture, fisheries and wildlife use in Ecuador and Guyana.

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## Sasol invests heavily in communities

Sasol's recent entry into the local fuel retail market has sparked tremendous public interest as did its global expansion as a major supplier of chemicals to many parts of the world and listing on the New York Stock Exchange last year. Perceived as an industrial giant, many people often overlook the major social impact Sasol has on South Africa.



**Govan Mbeki Sasol Mathematics Development Programme**

Sasol employs 31 000 people globally of which 24 are based in South Africa and also provides indirect employment for 170 000 people locally. The group has gone a long way to create a better social and economic dispensation in its host communities, especially those that are disadvantaged or under resourced.

More than R100 million is invested in key community focus areas every year: education, health and welfare, job creation and capacity building, arts and culture, and the environment.

Major investments in education range from literacy training and life skills development to the construction of schools, provision of science and

laboratory equipment, libraries and computer centres to schools and tertiary institutions. The group spends more than R500 million a year on research and development and sponsors some 500 engineering students through bursaries. More than 50% of the students are from previously disadvantaged groups.

The advancement of science and maths is a vital focus area, especially in view of the fact that competency among our children in these two areas falls well below the global median. Sasol uses science and technology exhibitions to spark interest.

The group sponsors Sasol Scifest, the country's annual National Festival of Science, Engineering and Technology at Grahamstown, as well as the annual Expo for Young Scientists at Sasolburg and the Sasolburg Science and Technology Exhibition, Sasol Techno X. These events draw more than 150 000 school children a year.

Already a major employer, the group this year invested R5 million in training

Sasolburg and Secunda communities in a variety of skills and assisting these trainees in finding gainful employment with contractors working on Sasol projects.

On the health front R4 million has been invested initially in an initiative to assess the impact and sustainability of Sasol's HIV/Aids programme on the workforce and communities where it operates. Aids orphans are sponsored, as well as tertiary institutions where students are trained to run Aids programmes and to deal with Aids professionally and personally.

A safe house has also been provided for abused children, while a campaign has started to restore the respect and dignity of older people through the assistance of caregivers.



**Boitjhorisong Childrens Choir**

Artistic and cultural diversity is another focus area for Sasol which sponsors the annual Sasol Choral Festival event, and The Sowetan Choir Festival, as well as the Sasol National Youth Orchestra and Sasol Free State Youth Symphony Orchestra.

Visual arts sponsorship of the Klein Karoo Nasionale

Kunstefees and musical events at Aardklop Kunstefees are also sponsored.

Sasol hosts one of the largest corporate art collections at its headquarters at Rosebank, investing in new artworks from local artists every year.

On the environmental front activities range from protecting endangered species such as the wild dog and vultures, to the funding of books on flora and fauna, a walking trail for the disabled, and community clean ups and beautification.

Key investments have also been made in sports. More than R72 million has been invested over the past five years in the development of the National under 23 soccer team, affectionately known

as Amaglug, and a R25 million contribution was recently made to the National Olympic Committee of SA for the team to the Athens Olympic Games. Sasol is also a major investor in the country's national rally championships and circuit racing.



**sasol**  
reaching new frontiers



*she can build her **future***



*because we're building her **foundation***

*Give this child a solid grounding and who knows the heights she could reach? This is why we spend millions on improving schools, creating libraries, publishing books and sponsoring arts and science festivals. At Sasol, we believe the sky's the limit. If you build right.*

*Sasol + little people = big possibilities*



# Small Island Developing States

**H.E. Ambassador Jagdish Koonjul**, Permanent Representative of Mauritius to the United Nations and Chairman of the Alliance of Small Island States (AOSIS)

This year 2004 marks the culmination of a process that brings world attention on to Small Island Developing States (SIDS) and their particular needs. It is ten years since the formal process began in Barbados in 1994, and the Alliance of Small Island States has been preparing for the ten-year review meeting in Mauritius. Practical implementation, backed by renewed political commitment, remain the priorities.

In August this year, the International Community will meet in Mauritius to review the implementation of the Barbados Program of Action (BPOA), a special program established in 1994 through the United Nations to promote and support sustainable development in Small Island Developing States. This program was based on the recognition by the international community that Small Island Developing States (SIDS) represent a special case for environment and development – in other words, for sustainable development.

Ten years down the road, the members of the Alliance of Small Island States (AOSIS) have found that this recognition has not in practice been translated into tangible programmes that could bring actual benefits to SIDS.

## SIDS a special case

At the World Summit on Sustainable Development held from 26 August to 4 September 2002 in Johannesburg the International Community reaffirmed the special case of SIDS and called for a full and comprehensive review of the BPOA in 2004.

It is in this context that AOSIS has undertaken to seek practical and pragmatic solutions that address the special case for SIDS that, for most SIDS citizens is intrinsically linked to our islands culture and environment, and to our relationship to the coasts and oceans – in short to our very 'islandness'. For this reason, I have commissioned a special study on the issues affecting SIDS, and, in my capacity as Vice-President of the Economic and Social Council of the UN (ECOSOC), I have proposed that we convene a special event on SIDS during ECOSOC's summer session. It is our hope that this will lead to better understanding by the International Community of the special situation of SIDS.

Developing countries, both SIDS and non-SIDS, all face considerable difficulties in their development paths. We know from economic figures that



Figure 1. Dr. Marcus Bethel, Minister of Health and Environment, The Bahamas, Mr. Anwarul Chowdhury, Secretary-General of the International Meeting, and Ambassador Jagdish Koonjul, the author.

economic growth and stable markets do not come about without serious efforts by governments and the private sector. We are also familiar with the images of other stressors on development, such as famine, war and social and health issues in these countries. But SIDS, in addition to all those general problems, have certain unique characteristics and specificities that create additional impediments and constraints. SIDS are, for the most part, small, remote and geographically dispersed. Because of their archipelagic formation, SIDS face serious problems

Recognition by the international community has not been translated into tangible programmes that could bring actual benefits to SIDS

of governance, communications, transportation, inter-island equity, as well as urban drift. In two SIDS in the Pacific for example, the citizens have to leave the country in order to fly from one end to the other. As most of the SIDS have small populations, they face higher per capita costs of governance and public infrastructure.

The oceanic nature of SIDS physical geography creates problems of its own. SIDS are prone to natural disasters such as cyclones, hurricanes and

tsunamis and the fragility of their ecosystems is highly impacted by these physical forces. The destruction wrought by Cyclone Heta on American Samoa, Samoa, Tonga, Cook Islands and in particular on Niue are dramatic examples of what island vulnerability entails. It is also a harbinger of what is to come, as climate change continues to exacerbate the already worsening extreme weather events.

## Trade and commerce

The special case for SIDS becomes most pertinent in the field of trade and commerce. Historical circumstances linked to colonisation have led many SIDS to become single commodity producers and single market exporters, and in present times heavily dependent upon tourism as the single service sector and major source of revenue. In addition to the high cost of production we also have to suffer higher costs of transport and communication taking into account the distances to our main overseas markets. SIDS also have a highly limited internal market and a heavy dependence on imports. Such factors, combined with the limited ability to benefit from economies of scale, adversely affect our ability to compete with other producers including many of the developing countries.



These unique characteristics of SIDS thus have serious implications on their ability to attain sustainable development, unless appropriate steps are taken in support of their efforts. The vast majority of SIDS will not be able to implement export-led strategies through the production of goods or services, the more so since the advice provided and regulations imposed on them by multilateral institutions are still based on the paradigm of development through expansion of the GDP.

### Vulnerability and resilience

Another aspect of the SIDS special case is the issue of SIDS vulnerability. As stated above, all developing countries face challenges, but because of the vulnerabilities of SIDS these challenges have a unique and disproportionate impact on the economic, social and environmental development of SIDS. The University of Malta and the South Pacific Applied Geoscience Commission (SOPAC) have made extensive and groundbreaking studies in this field. With the assistance of UNDP and the SIDS Unit of the UN we now also have in our hands a series of far-ranging case studies and reports on vulnerability of SIDS. All these studies have come to the same conclusion that the best response to vulnerability is building of resilience.

The building of resilience comes about through the sound management of resources in such a manner that maintains the highest level of diversity, requiring that all products and services be obtained in a synergistic manner. The maintenance of high levels of diversity also allows the environment to recover from external shocks. Sustainable

development in SIDS therefore requires sustainable management of the environment and a mainstreaming or integration of sustainable development into national planning strategies. Integrated planning enables a better and clearer vision of opportunities and obstacles, and more productive ways to implement policy development that is sustainable. The work of our experts on vulnerability will therefore be re-focused in the coming months to look at resilience building in the context of the existing challenges as well as the new and emerging issues.

The special case of SIDS can therefore be defined as one of inherent vulnerabilities and national challenges, further exacerbated by external pressures.

### The special case of SIDS can be defined as one of inherent vulnerabilities and national challenges, further exacerbated by external pressures

While sustainable development of SIDS is within the realms of possibility, the present world economic situation does not lend itself to such development. The recognition of SIDS as a group of countries with specific and unique vulnerabilities needs to be translated into concrete action that would ensure their survival upon the further integration of the global economy. Consideration of the special case of SIDS would also cause the multilateral institutions to provide a better service for SIDS commensurate with their particular needs.



Figure 2. Small islands are particularly vulnerable.

AOSIS is carefully preparing the 10-year review of the BPOA. In the regional preparatory meetings as well as the Inter regional Ministerial Meeting which took place in Nassau, Bahamas from 26 to 30 January, SIDS have made critical assessments of their own performance, identified the difficulties they have faced and continue to face and have also looked at new and emerging issues which are likely to further affect them.

At the Mauritius International Meeting AOSIS will look for solutions appropriate to SIDS, and will wish to seek consensus with our development partners on a new political commitment for the sustainable development of SIDS. Such consensus will be based on partnership, mutual interest and interdependence. It is our hope that the development partners will respond appropriately and generously.

#### ABOUT THE ORGANISATION

The Alliance of Small Island States (AOSIS) is a coalition of countries that share similar development challenges and concerns about the environment. It functions primarily as an ad hoc lobby and negotiating voice for small island developing states (SIDS) within the United Nations system. AOSIS has a membership of 43 States and observers, from all oceans and regions of the world. Member States work together primarily through their New York diplomatic Missions to the UN; and AOSIS operates out of the chairman's Mission to the UN.

#### ABOUT THE AUTHOR

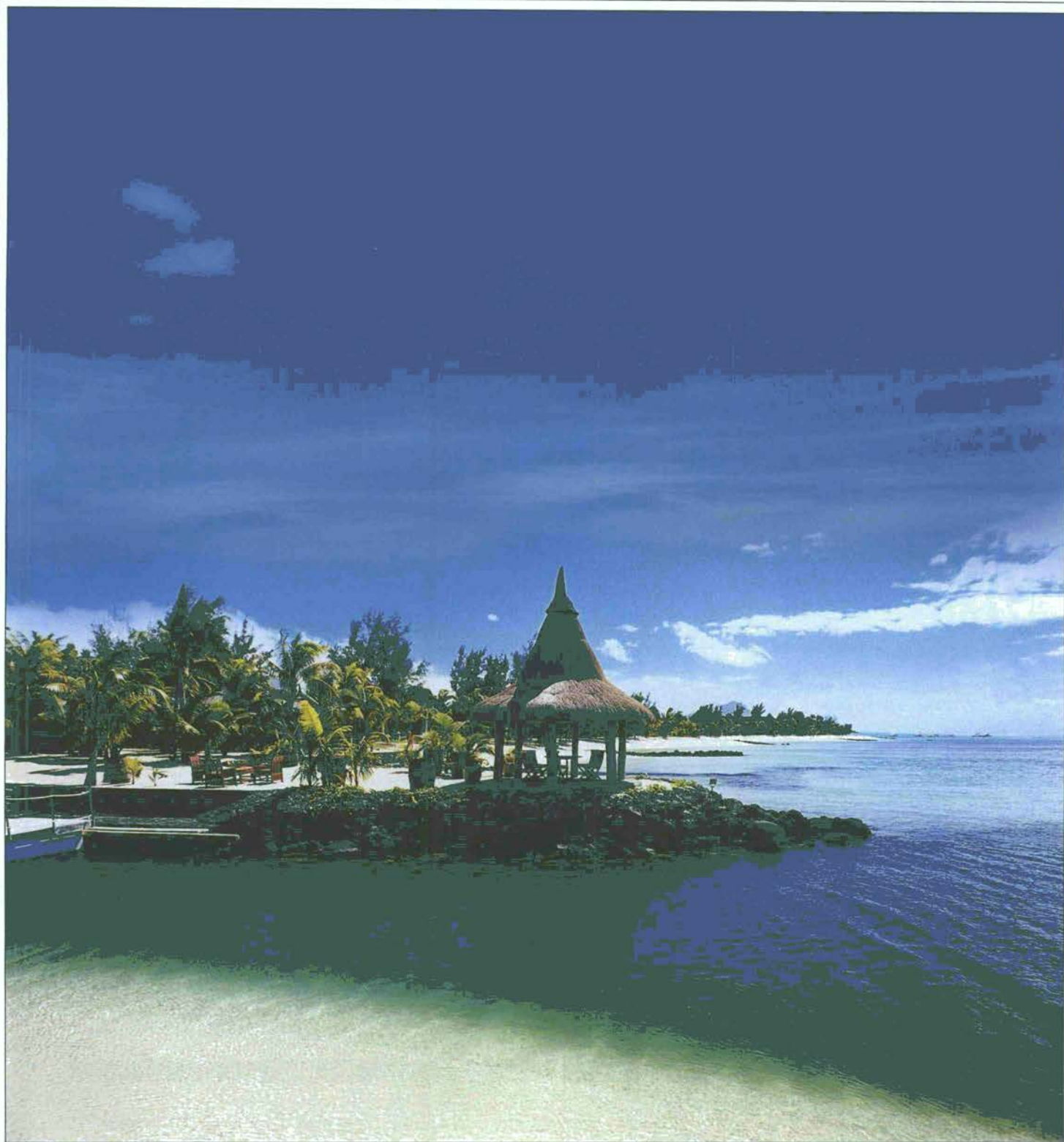
H.E. Mr Jagdish Koonjul was posted to the Permanent Mission of Mauritius to the United Nations in New York in 2001. He has been Ambassador Extraordinary and Plenipotentiary since January 1999. He has served with his country's embassies in Brussels, Paris and Washington D.C. and was Deputy High Commissioner of Mauritius in New Delhi. His other distinguished posts include Second Secretary at the Ministry of External Affairs, Tourism and Emigration, and Head of the Multilateral Political Directorate at the Ministry of Foreign Affairs and International Trade. Ambassador Koonjul is currently the Chairman of the Alliance of Small Island States (AOSIS) and Vice-Chairman of the Economic and Social Council.

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*We'd be so pleased to hear from you.*



# Responding to climate change

## 1. Small islands take lead on coral reefs

Ronny Jumeau, Minister for Environment and Natural Resources, Seychelles

The year 2004, the year leaders of the small island developing states (SIDS) of the world gather in Mauritius for the 10-year review of the Barbados Programme of Action (BPOA), better known as Barbados+10, provides small islands with their best opportunity yet to put one of the greatest threats to their existence, the destruction of coral reefs, even higher on the global environmental agenda.

This is because Seychelles, one of the smallest states, which will attend the Mauritius meeting, is also the first island country to co-chair the International Coral Reef Initiative (ICRI), the global umbrella covering all efforts to save the world's coral reefs.

But why is Seychelles taking the coral reefs issue so much to heart?

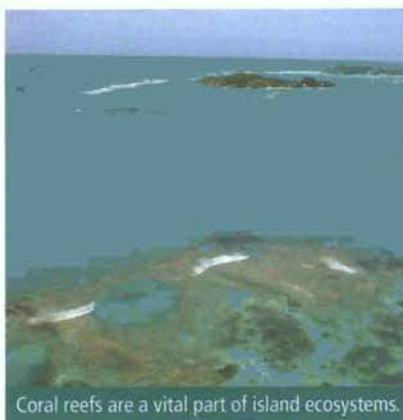
When the El Niño of 1998 caused massive coral bleaching around the world, Seychelles was one of the hardest hit in the Western Indian Ocean, with between 80% and 95% of the islands' corals dying as the result of excessively high sea temperatures that lasted for several months.

This shocked our population of 80,000 as no other natural disaster could, as the two mainstays of the Seychelles economy are tourism and fisheries, both heavily dependent on healthy reefs.

Furthermore, as with all coral reefs around the world, ours were also already under intense stress from tourism and other coastal development, traditional reef fisheries, land and marine based pollution, and other coral reef based activities such as the trade in corals, shells and associated species, as well as climate change.

The United Nations Environment Programme (UNEP) has described coral reefs as the ecosystem equivalent of the canary in the coalmine, giving early warning of the severity of human impacts on whole ecosystems. Seen this way, the massive coral deaths were to us in Seychelles the equivalent of the canary having keeled over from too much heat and all but died!

To make matters worse, as oceanic islands our coral reefs are our first and best defence against the ocean waves. In short, if our reefs go, so do our coasts, and if our coasts go, so do we.



Coral reefs are a vital part of island ecosystems.

As I told a scientific coastal zones conference in London last year, unlike people living on larger land masses, we islanders will have nowhere to run, except to the other side of the island, only to find that disappearing too.

Much has been said of the nightmare of low-lying small island nations like the Maldives, which lies no more than two metres above the Indian Ocean, and the Pacific's Tuvalu, five metres at its highest point, one day disappearing below rising seas caused by increasing temperatures. But even without global warming, they would still be eroded into nothingness if their reefs were to be destroyed for other reasons.

And yet the destruction of coral reefs does not get as much attention among donor nations as sea level rise: this is because the latter is directly linked to global warming, the cause of fatal heatwaves, massive power outages and devastating crop failures from Europe to North America. Global warming simply hits their pockets much more painfully than the deaths of corals in far-flung tropical isles.

So when the opportunity arose, at very short notice, to join the United Kingdom as co-chair of ICRI for 2003-2005, Seychelles leapt at the chance and we have been relentlessly pushing the coral reefs agenda since.

It is true only 40% of coral reefs lie around small islands, and only 21% around small island developing states. It is equally true, however, that the loss of coral reefs are a far, far more frightening prospect to Tuvalu with all of its 26km<sup>2</sup> of dry land and 12,000 people, for example, than to Australia, home of the

Great Barrier Reef, with its 7.6 million km<sup>2</sup> for just 18 million people.

In fact, the Pacific alone is home to some 2.5 million people living on islands that are either exclusively built by coral or surrounded by significant coral reefs.

So while ICRI does include continental countries with major coral reefs, Seychelles realised it would be up to the nations with the most to lose, the small islands, to make the most noise. Hence Seychelles' initiative for an ICRI Resolution on Small Island Developing States and Coral Reefs to be adopted at the SIDS meeting in Mauritius, where small islands would once again take centre stage.

Seychelles has accordingly pushed the resolution at breakneck speed. It was adopted by the ICRI Coordinating and Planning Committee (CPC) in the Turks and Caicos Islands in November, 2003, a mere four months after we took over as ICRI co-chair along with the UK that July. It has since been approved within the SIDS network by the AIMS (Atlantic, Indian Ocean, Mediterranean and South China Sea) regional grouping in Seychelles in January this year, and the subsequent Barbados+10 inter-regional meeting in the Bahamas later that same month.

At the time of writing, the resolution had been tabled for consideration at the 7th Conference of the Parties (COP-7) of the Convention on Biological Diversity (CBD) in Malaysia in mid-February, UNEP's special session of its Governing Council/ Global Ministerial Environment Forum in Jeju, South Korea in March, and the Barbados+10 meeting in Mauritius in August/ September.

But we will not stop there. We intend Mauritius to be but another, if crucial, stepping-stone in taking the coral reef agenda around the world beyond 2004.

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# Responding to climate change

## 2. Adapting to change in the Pacific

**Asterio Takesy**, Director, South Pacific Regional Environment Programme, Samoa

Climate change is the most serious threat the world has to face over the next decades. The impact of climate change in the Pacific will be enormous. The greatest consequences of global warming are expected to be a rise in sea level (possibly 50 centimetres by 2050), an increase in natural disasters (cyclones and storms) and disruption to agriculture (drought, floods and changed growing conditions).

The International Panel for Climate Change has projected an increase in climate variability and changes in the frequency, intensity and duration of extreme events. The changes are already under way in the Pacific region. The warmest decade in the Pacific during the last 1000 years was 1990–2000, with 1998 the warmest year. The strongest recorded hurricane to hit one of the Pacific islands was in 2002 (500+ kph gusts), and the first off-season cyclone to hit Vanuatu was also in 2002. Kiribati, the northern Cook Islands and northern French Polynesia have become wetter. New Caledonia, Fiji, the southern Cook Islands and southwest French Polynesia have become sunnier. On average, three cyclones per decade hit Tuvalu between the 1940s and 1970s; eight occurred in the 1980s. Tokelau had had only three major storms since 1846 until two cyclones struck in the early 1990s.

Pacific island countries are not responsible for climate change but they will be among the first to suffer its impacts. This January, cyclone Heta hit Niue head on, wiping out economic crops and causing damage estimated at US\$47 million. In fact, the Niueans are fighting back to re-establish themselves, but Heta highlighted two aspects of climate change; just how vulnerable Pacific islands are, and how simple measures can help Pacific countries adapt to climate change. Despite the severity of the cyclone, power was restored throughout Niue in less than a day. Why? Because most of the electricity supply lines were buried in trenches underground. It took weeks to restore power throughout lesser-affected Samoa, despite Herculean



Damage caused by cyclone Heta on Niue.

efforts by the power company, because the distribution system relied on the usual, vulnerable, system of overhead cables.

### Adaptation and resilience

Many Pacific islands are low lying or have coastal features and characteristics that make them particularly vulnerable to extreme events, like relying on a single freshwater source. In addition to significant coastal impacts, climate change will affect biodiversity, health, soils, agriculture, coral reefs, fishing, forests, water supplies and tourism in the Pacific. Most small island states will find it extremely difficult to adapt to these changing conditions. Acting now to reduce the vulnerability of Pacific island countries to present climate variability and change should go a long way in helping the countries sustain development and eliminate poverty. Failing to adapt now could lead to high social and economic costs in the future. Communities and governments need to take action to adapt to change and increase the resilience of their systems. Simple actions are needed like conserving mangroves and building sea walls, implementing cyclone-proof building codes and safeguarding water supplies. Much more complex action is needed at the institutional level, to build up capacity and expertise that would enable governments to identify and evaluate options to adapt to climate variability and change.

SPREP, the South Pacific Regional Environment Programme, based in Samoa, is currently pioneering the two main approaches to improving the resilience of Pacific institutions and

communities to climate-related risks, through a Canadian aid funded project. At the institutional level, the project is working with countries to improve institutional arrangements and development of adaptation policies and strategies. The project is also training at the community level to pass on the knowledge and skills to assess vulnerability and implement programmes of action on adaptation.

The United Nations Framework Convention on Climate Change requires developed countries to assist developing countries to adapt to the negative effects of climate change. Many major donors and international organisations are coming to realise that adapting to climate change is the most constructive approach to an inevitable situation. Adaptation must start with actions that target current vulnerabilities, allowing communities to build more resilient and secure livelihoods that can confront the impacts of climate change. By protecting and enhancing the natural services that support livelihoods, vulnerable communities can maintain local safety nets and expand their range of options for coping with disruptive shocks. This approach to adaptation has the advantage of meeting immediate development needs while contributing to longer-term capacity development that will create a basis for reducing future vulnerabilities. Adaptation options are most effective when incorporated with policies in other areas, such as disaster mitigation and land use planning.

The injustice of the situation is that the developing countries, who can least afford it, are having to pay to cope with the effects of a situation created by the developed countries. That alone is surely justification enough to redouble our efforts.

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# Responding to climate change

## 3. Adaptation in the Caribbean

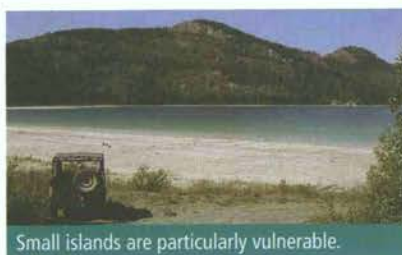
Ulric O'D Trotz & Judi Clarke, Adapting to Climate Change in the Caribbean (ACCC) Project, Barbados

The Barbados Programme of Action (BPOA) articulated at the Small Island Developing States (SIDS) conference (1994) identified climate change as a priority issue to be addressed by the Small Island Developing and low lying coastal states of the Caribbean.

As we approach the Barbados+10 conference in Mauritius later this year, twelve Caribbean Community (CARICOM) member states (Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Kitts & Nevis, St. Vincent & the Grenadines, and Trinidad & Tobago) can report that, despite competing demands for resources, they have made significant strides towards addressing the climate change problem in the region. Like other SIDS in the Pacific and Indian oceans, CARICOM countries recognise the need to craft strategies for adaptation to climate change and have lent their voice at international negotiating forums to seek the allocation of resources for adaptation and to move the adaptation landscape to the forefront of the United Nations Framework Convention on Climate Change (UNFCCC) negotiations.

For the region, average annual temperatures have increased by at least 0.5 degrees Centigrade over the period 1900–1995 and in some Caribbean countries by 1 degree or more. Models do not agree on future changes in annual precipitation although most show drying conditions. Recent records show trends towards increasing precipitation and sea level rise in the northern Caribbean. The latter, in particular, poses a serious threat to Caribbean countries where the majority of its people live and earn their livelihoods in low-lying coastal regions.

Since 1997, the Caribbean region has embarked on a serious effort to build capacity for adaptation to climate change. This effort was supported by funding from the Global Environment Facility (GEF) for the implementation of the Caribbean Planning for Adaptation to Climate Change (CPACC) (1997–2001) project which built capacity in the region in preparing to cope with the adverse effects of global climate change, particularly sea level rise, in coastal



Small islands are particularly vulnerable.

and marine areas, through vulnerability assessment and adaptation planning. The Canadian International Development Agency (CIDA) funded Adaptation to Climate Change in the Caribbean (ACCC) project (2001–2004) built on the foundations of the CPACC project. It also introduced the concept of a risk management approach for dealing with climate change impacts and the identification of viable adaptation options. A new GEF project, Mainstreaming Adaptation to Climate Change (MACC) which is currently being implemented (2004–2007) aims to further create an enabling environment for climate change adaptation in the region.

Under CPACC it was soon realised that, in the absence of the extensive data sets required for vulnerability assessments and more region-specific climate projections, a novel approach to the latter was needed. Such an approach was identified and implemented, and was premised on the recognition that the region is already vulnerable to the impacts of present-day climate variability and that most of the natural disasters experienced in the region have a climate signal – floods, droughts, landslides, hurricanes. Any effort to decrease the vulnerability of the natural, built and socio-economic systems to the impacts of present-day climate variability would be contributing to adaptation to the longer-term threat of climate change. Another important assumption in this process is that there are existent expert knowledge and community perspectives in each country on the vulnerabilities of key elements of the society and ways in which these may be reduced (adaptation). Under CPACC therefore, an extensive consultative process involving all the key stakeholders (public and private sector, NGO's, sector specialists, political directorate) was embarked on to identify: critical climate change issues as they impact on the

livelihoods of people; key vulnerabilities that need to be addressed if a country's sustainable development was not to be compromised; feasible adaptation options; and an implementation plan for adaptation.

The result of this exercise was the articulation of National Climate Change Adaptation Policies and Implementation Plans in eleven CARICOM countries. In two countries, Dominica and St. Lucia these plans have received Cabinet approval and others are in the process of doing so. Examination of these policies shows they call for action, which supports national sustainable development agendas. For example they all identify future water shortage as a problem and call for actions such as Integrated Water Resource Management (IWRM), water harvesting and conservation and watershed management.

The Caribbean approach to adaptation, crafted under the CPACC project, mirrors that subsequently proposed for the preparation of National Adaptation Policies and Action plans (NAPAs) for the Least Developed Countries (LDCs), which were approved at COP7 in Marrakech in 2001. This is not surprising as the circumstances prevailing in most SIDS of the Caribbean are not significantly different from those in the LDCs. It also mirrors the 'bottom up' approach being pursued by SIDS in the South Pacific. As these countries build the capacity to garner more extensive data and to add definition to the extent of the climate risks they are likely to be exposed to, they can revisit the adaptation pathways which they have embarked on and adjust these to fit their new understanding of the problem. The region looks forward to the availability of resources to enable them to embark on the long road to reducing their vulnerability to climate variability – a legitimate approach to the longer-term goal of adaptation to climate change.

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# THE NEW PARTNERSHIP FOR AFRICA'S DEVELOPMENT [NEPAD]

## AFRICAN PEER REVIEW MECHANISM (APRM)

### CORPORATE GOVERNANCE: FRAMEWORK AND GOALS: THE CHALLENGE FOR AFRICA\*

#### *I. Background*

The New Partnership for Africa's Development (NEPAD) is the Strategic Policy Framework and Socio-economic Development programme of the African Union (AU). The vision of NEPAD is "to eradicate poverty and to place countries, individually and collectively, on a path of sustainable growth and development, and at the same time to participate actively in the world economy and body politic". This calls for sustainable production and creation of wealth through well governed and competitive entities whether they are public or private.

In an effort to enhance the quality of governance in Africa, the 6th Summit of the Heads of State and Government Implementation Committee (HSGIC) held on 9th March 2003 adopted the Declaration on Democracy, Political, Economic and Corporate Governance. This document contains prioritised and approved codes and standards in four focus areas: Democracy and Good Political Governance; Economic Governance and Management; Socio-Economic Development; and Corporate Governance.

To underscore the commitment to implement the codes and standards contained in the Declaration on Democracy, Political, Economic and Corporate Governance, the Heads of State and Government also adopted a Memorandum of Understanding on the Africa Peer Review Mechanism (APRM). In this context, the APRM is a self-monitoring mechanism voluntarily acceded to by Member States of the AU with the aim of fostering the adoption of policies, standards and practices that will lead to political stability, high economic growth, sustainable development and accelerated regional and economic integration. This is meant to be achieved through the sharing of experiences and reinforcement of successful best practices including identifying deficiencies and assessing the needs for capacity building of participating countries.

To date sixteen member states of the AU have voluntarily acceded to the APRM. These countries are Algeria, Burkina Faso, Cameroon, Republic of Congo, Ethiopia, Gabon, Ghana, Kenya, Mali, Mauritius, Mozambique, Nigeria, Rwanda, Senegal, Republic of South Africa and Uganda.

To facilitate the implementation of the APRM, the Heads of State and Government also adopted the Objectives Standards Criteria and Indicators document (OSCI document), which further elaborates on the approved codes and standards and the agreed objectives for reform in each of the four issue areas mentioned above. The OSCI document also outlines specific criteria and indicators for evaluating, monitoring and sustaining progress towards agreed targets in the four focus areas of the APRM.

#### *II. Corporate Governance and the APRM*

Corporate Governance is a system by which corporations are directed, controlled and held to account. It embraces all forms of enterprise in the private and public sectors. Good corporate governance has seven distinguishing characteristics: discipline, transparency, independence, accountability, responsibility, fairness and social responsibility.

Good corporate governance provides a level of disclosure and transparency regarding the conduct of corporations, their boards and directors that enables the supervision of their accountability

while ensuring that they comply with their legal obligations and remissions in respecting relations with shareholders and other stakeholders including employees, suppliers, creditors and customers and the community. This is important because it increases investor confidence and makes it easier for corporations to raise equity capital and finance investment. Africa is a continent that has historically attracted very little investment, it is hoped that improved corporate governance on the continent especially when done in the context of wider economic and systemic governance will enhance the confidence of both foreign and domestic investors.

Good corporate governance also requires that corporations act responsibly with regard to human rights and the environment and that they are responsive to the needs and concerns of the societies in which they operate. Most economies in Africa rely on agriculture, mining and other extractive industries that have adverse effects on the environment. In addition abject poverty, hunger and the scourge of pandemics such as HIV/AIDS, Malaria and Tuberculosis afflict many of our communities. What this means is that the concepts of corporate citizenship and corporate social responsibility have to be unpacked and adhered to ensure that corporations manage the environment sustainably and impact positively on the communities within which they operate. The Declaration on Democracy, Political, Economic and Corporate Governance recognises the importance of good Economic and Corporate Governance in creating growth and making economic progress. This Declaration approves and prioritises eight codes and standards specific to the areas of Economic Management and Corporate Governance that 'have the potential to promote market efficiency, to control wasteful spending, to consolidate democracy and to encourage private financial flows – all of which are critical aspects of the quest to reduce poverty and enhance sustainable development'.

These eight approved codes and standards are: Code of Good Practices on Transparency in Monetary and Financial Policies; Code of Good Practices in Fiscal policies; Best Practices for Budget Transparency; Guidelines for Public Debt Management; International Accounting Standards; International Standards of Auditing and the Core Principles of Effective Banking Supervision. The Heads of State and Government also approved other key codes and standards in transparency and financial management including Principles for Payment Systems, Recommendations on Anti-Money Laundering and Core Principles for Securities and Insurance Supervision and Regulation.

In the initial stages of the NEPAD programme, Corporate Governance was considered jointly with Economic Governance and Management, but as the process evolved, it became necessary to split the two issue areas so as to achieve the necessary specificity for each area. As a result, the OSCI document isolated from the above codes and standards those that were specific to Corporate Governance and added to these certain other codes that were deemed pertinent to corporate behaviour, for example labour codes. As a result, the following codes and standards are listed in the OSCI as suggestive guides for Corporate Governance Reform: Principles of corporate governance (OECD and Commonwealth); International accounting standards; International standards on auditing; Core principles of Effective Banking Supervision; Core principles for Securities and Insurance Supervision and Regulation; African Charter on Human and



Peoples' Rights; Labour Codes of the International Labour Organisation (ILO); and Codes on industrial and environmental safety and hygiene of the World Health Organisation.

*The OSCI document also identifies five broad objectives to guide Corporate Governance Reform in Africa.*

i. *Promoting an Enabling Environment and Effective Regulatory Framework for Economic Activities*

This objective focuses on the legal and administrative measures that are in place to facilitate economic activities. Primary analysis under this objective aims to assess the effectiveness of both government authorities (particularly in the banking, insurance and securities market) and self regulatory authorities [including stock exchange, professional and trade associations] in regulation, monitoring and supervision.

Discussions under this objective have however often highlighted issues relating to peace and security, efficiency of the judiciary and police, infrastructural and human resource development as impacting on the provision of an enabling environment for economic activities. As pointed out earlier, there are four focus areas of the APRM including Democracy and Political Governance and Socio-Economic Development that deal with these issues in-depth. We do however in Corporate Governance flag and appreciate related issues that are primary to the performance of business activities for example; independence, capacity and efficiency of the judiciary in enforcing commercial law; efficient communication systems and access to information; and availability of skilled professionals in areas relevant to Corporate Governance e.g. accountants, auditors, lawyers and company secretaries.

ii. *Ensuring that Corporations act as Good Corporate Citizens with Regard to Human Rights, Social Responsibility and Environmental Sustainability*

This objective addresses three main issues: human rights including adherence to labour obligations; social responsibility; and matters relating to the environment. It impacts similarly on both public and private sector entities. Some of the specific issues covered include: employee rights, provision of safe working environment and fair wages; the degree of corporations' responsiveness to community needs including focus on issues such as health, Education and Skills Development; and responsible behaviour with regard to the environment including environmental rehabilitation projects, environmental impact assessments, recycling and use of clean technology.

iii. *Promoting Adoption of Codes of Good Business Ethics in Achieving the Objectives of the Corporation*

The King II report defines business ethics as the 'principles, norms and standards that guide an organisation's conduct of its activities, internal relations and interactions with external stakeholders.' Under this objective, self-regulation and the development of voluntary codes on business ethics by the public and private sector and inculcation of these codes within organisations, the observance and enforcement of these codes by the concerned bodies, ethics audits and best practice ethic management scheme replication is some of the indicative criteria sought.

Other issues that have been discussed under this objective include provisions and safeguards for whistle blowers, mechanisms for naming and shaming; and stiffness of penalties for ethics violation. Another important issue that has been raised relates to independence and freedom of the media and the quality of financial and investigative journalism and other features that serve to look after the so-called 'public interest' available on the African continent.

iv. *Ensuring that Corporations Treat all their Stakeholders Including Shareholders, Employees, Communities and Suppliers Fairly*

This objective addresses the Corporate Governance concepts of accountability to shareholders and responsibility to stakeholders. Relevant issues include shareholder rights including

the right to convey or transfer shares, obtain relevant information on the corporation on a timely and regular basis, participate and vote in general shareholder meetings, elect members of the board and share in the profits of the corporation and mechanisms for shareholders to seek redress in case of violation of their rights.

The objective also focuses on legislation or codes of conduct governing the direct relationship between stakeholders and corporations, for example, trade union, consumer legislation and bankruptcy laws and the level of compliance and enforcement of such legislation and codes; interactions between stakeholders and corporations; access to information; and rights of participation by stakeholders in relevant fora.

Examples of conduct that may show a corporation's treatment and relations with its stakeholders include, product recalls, false advertising, price fixing and anti-trust suits, labour strikes and community protests, number, level and frequency of corporate bankruptcies, e.t.c.

v. *Providing for Accountability of Corporations, Directors and Officers*

This objective relates to the effectiveness of the corporate governance framework governing disclosure requirements, the enforcement thereof and the adequacy of remedies for breach. Examples of relevant issues include, auditing, accounting and filing requirements in accordance with international requirements, timely and cost effective access to information, and training programmes for directors and officers.

### III. Conclusion

From the discussions to date with regard to the NEPAD Corporate Governance reform strategy, these are some of the conclusions that can be drawn:

- In addressing corporate governance on the African continent, regional and national differences must be accounted for;
- The relative small size of the capital markets implies that enterprise takes place in forms other than corporations e.g. informal sector, small and medium sized enterprise (SME) and other forms of indigenous private enterprises. Hence, any Corporate Governance programme that will make a difference on the continent must be alert to this fact;
- The state-owned enterprises play a major role in economies and must be key players in Corporate Governance development and reform. Observers have noted that if Corporate Governance norms are adopted and observed by public institutions, the prescriptive nature of public sector adherence and enforcement will ensure that the norms spiral out to the wider populace;
- That there are linkages between governance of micro-institutions and wider macro and systemic governance. As a result, there is need for more public-private sector consultations for effective governance.

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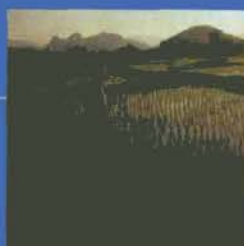
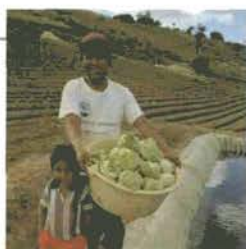
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NEPAD



# Working together for a better world



With operations in over 60 countries, Alcan Inc. is a global leader in aluminum and packaging, as well as aluminum recycling. We are also recognized as one of the world's leaders in promoting sustainability as a business management concept. At Alcan, we view sustainability not as a destination but as a journey of learning and change.

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In association with the  
International Business Leaders Forum



# CSR & Sustainable Finance



Who to go to for advice and assistance on Corporate Social Responsibility  
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CSR watch  
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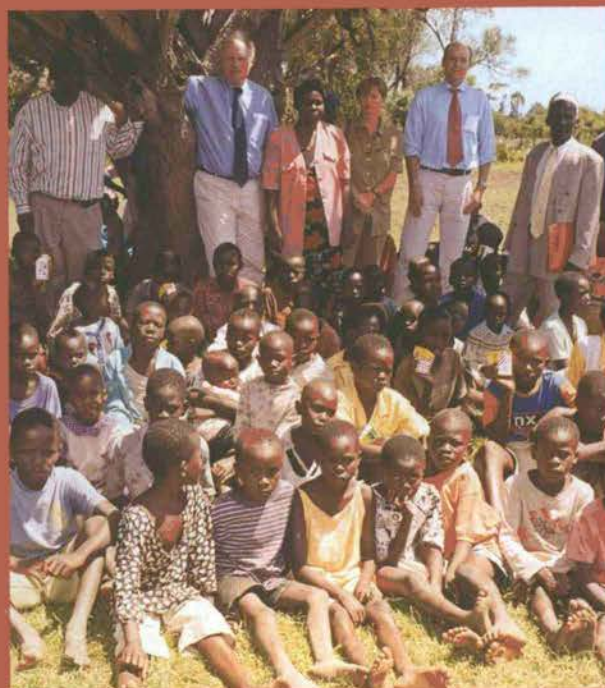
FTSE4Good: influencing corporate behaviour  
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Creative business leader development  
page 50



Principled banking with Equator  
page 53



Two organisations explain how in London they are putting young executives together with entrepreneurs from low-wealth areas in a win-win learning experience for all-concerned. As demand increases for Corporate Social Responsibility (CSR) and sustainability initiatives, SDI offers a guide to companies on where to go for advice and assistance on these issues. The FTSE4Good index yields social responsibility performance data on companies for investors. It sets minimum standards for companies to meet, and last year introduced stricter human rights criteria. Banks, and the international private finance that they control, are now overwhelmingly governed by the Equator Principles. These are based on World Bank policies on environmental and social issues, as we describe.



# Where to go for advice and assistance on Corporate Social Responsibility

Reporting by **Alex Blythe**

**A**cross the UK, hundreds of board meetings of medium sized companies are ending with one executive walking out looking puzzled and asking himself: "CSR? Corporate social responsibility, apparently. I always thought it stood for customer service representative. So, how on earth am I going to devise a strategy for it?" Although most executives have heard of CSR, few know what it means, and even fewer still have any idea of how to go about introducing it to an organisation. An executive tasked with reducing IT costs might order an IBM brochure, or one trying to introduce a formal disciplinary procedure might pick up the phone to the Chartered Institute of Personnel & Development, but few would know of a similar starting point for CSR.

As CSR has become an ever more important issue in global business, with most large companies now having CSR departments and almost all looking in some way at how to operate in a more responsible fashion, so an increasing number of executives are searching for advice and assistance on the subject. With such a new business topic it can be difficult to find the right advisers, particularly for an area as nebulous as CSR. Fortunately, however, a handful of companies have led the way on CSR, forging a path for others to follow, and making the mistakes from which others can learn. Several of those CSR trailblazers are even willing to share those experiences in the hope that other will find it easier to find the right advisers.

There are five names that crop up more than others in discussions with CSR leaders. They are Business in the Community (BITC), the International Business Leaders Forum (IBLF), Business for Social Responsibility (BSR), AccountAbility, and SustainAbility. Each is different, but all have forged enviable reputations as centres of excellence for advice on how to develop CSR strategies and policies.

## Business in the Community

Founded over twenty years ago, BITC is an independent charity that seeks "to create a public benefit by working with



Figure 1. CSR leadership from International Business Leaders' Forum.

companies to improve the positive impact of business in society." It now has 700 UK member companies, with one in five of the UK workforce employed by a BITC member company. BITC is involved in many community projects across the world, and promotes CSR through initiatives such as the Corporate Responsibility Index that was launched in March 2003. But for many its real value is its role as a platform for discussion on CSR issues. As Peter Davies, Deputy Chief Executive of BITC argues: "One of the problems in developing CSR strategies is that each company faces a unique situation. There is no one size fits all solution. At BITC we have around 700 members, and so there is a chance that at least one will be in a similar situation and so will be able to provide you with some advice on how to get started." Since membership of BITC costs only

between £3,000 and £12,000 depending on size, many do follow the advice of Andy Taylor, Head of CSR at Ford: "If you're starting out on the CSR path then talk to BITC. They don't cost the earth and they really know what they're talking about."

## International Business Leaders' Forum

Founded in 1990 by The Prince of Wales and a group of international CEOs, International Business Leaders' Forum aims to promote international leadership in responsible business practices that benefit business and society in developing countries and emerging markets. It has a membership of 80 and an annual turnover of £3.8 million. It claims to offer three benefits to members: inspiring leadership on CSR, facilitation of multi-sector partnerships, and practical assistance



for company operational managers throughout the world. Membership is priced between \$30,000 and \$100,000 and members include many of the world's leading multinationals such as Coca-Cola, Vodafone and BMW amongst its members. Diageo was a founding member. Its Director of Corporate Citizenship, Geoffrey Bush, is full of praise for IBLF: "When we first set up community projects in remote locations around the world we found the expertise and contacts of the IBLF absolutely invaluable."

## Business for Social Responsibility (BSR)

Although both BITC and IBLF have embraced the broader CSR agenda in recent years, they were both initially founded to focus on community initiatives. For most people, being a responsible corporate is also about environmental protection, employee relations, corporate governance, supply chain ethics and many other issues. Business for Social Responsibility was founded in 1992 in San Francisco as an association of around fifty companies such as Ben & Jerry's, Patagonia, and Tom's of Maine, all dedicated to, as they put it: "Helping businesses be both commercially successful and socially responsible." With European headquarters in Paris, BSR is becoming the first port of call for an increasing number of medium-sized and small companies that want to develop CSR strategies.

## SustainAbility

Definitions of corporate social responsibility are as numerous as the burgeoning number of consultants claiming to be experts in it. For many, however, the term focuses on the corporate response to the challenge of sustainable development, and so it

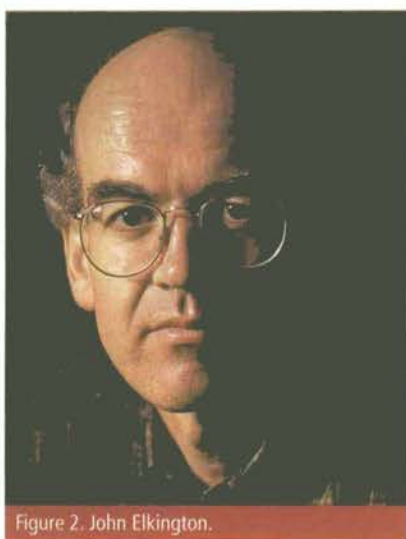


Figure 2. John Elkington.

## How to select the right consultancy

CSR executives at some of the world's leading companies suggest that you ask these questions before paying anyone to advise or assist you with any aspect of CSR.

- 1) Are they credible? Can they handle the scale of the business?
- 2) Do they understand your business? Are they professionals used to the pressures of working with a large, demanding company?
- 3) Are they pragmatic and realistic, talking about the way the world is, not the way they'd like it to be?
- 4) Do they walk the talk themselves? In what ways do they behave responsibly and what proof can they present?
- 5) Is CSR a mainstream or a bolt-on activity for them? Will they be able to work with you to integrate CSR or will they just help it stay as a peripheral business activity?
- 6) Can you get the service for free elsewhere? For instance, if you want advice on a human rights policy, have you asked Amnesty International?
- 7) Do you actually need this service? In what way will it benefit your company?

comes as no surprise to hear the name John Elkington crop up often in discussion of CSR. Famous for his definition of the triple bottom line, he is an internationally respected authority on the subject. SustainAbility, the consultancy that he founded in 1987 and now chairs, is used by many leading companies including Nike, Unilever and Shell, for advice on issues relating to sustainable development.



Figure 3. SustainAbility logo.

## AccountAbility

Since being established in 1996 AccountAbility has grown to over 300 members in 20 countries and is now mentioned by most CSR leaders as one of the five "must-see" organisations. AccountAbility's mission is to promote accountability for sustainable development. It describes itself as "An international multi-stakeholder organisation committed to enhancing the performance of organisations and developing the competencies of individuals in sustainable development." Although it offers a wide range of services around that theme, the organisation is best known for its AA1000 Series, a process that many companies have applied to their social and environmental reporting to develop internal and external credibility for those documents.

## All or nothing

Whilst there is a broad consensus in the

CSR industry that those five companies are the ones to speak to when starting out down the CSR path, beyond that there is a vast divergence of opinion not only on the value of different consultants, but even on the value of consultants at all. At one end of the spectrum Johnson & Johnson has no CSR department and employs no advisers on the subject, as Head of Government Affairs, David Brickwood explains: "Everyone at J&J adheres to our Credo, a code of conduct developed by our founder, and in this way the concept of social responsibility is effectively ingrained into the business. We have individual departments for charitable giving, environmental policy and so on, but absolutely no need for a CSR department." At the other end, Andy Taylor at Ford presents a list of CSR advisers as long as his arm: "We work with the World Business Council for Sustainable Development, the UN Environment Programme, FTSE4Good, the Dow Jones Sustainability Index, CSR Europe, BITC and SustainAbility, as well as various formal and informal discussion groups on the subject. For instance, the Financial Times recently hosted a lunch for several blue chip companies to discuss CSR issues. We also have one-to-one meetings with other companies. KeyMed came in to see us recently for an exchange of ideas on the topic. Finally we also get advice from NGOs like Friends of the Earth and the World Wildlife Fund for Nature."

## Do you want CSR with that?

The groups that Taylor lists are just the tip of the 'CSR market'. The majority of public relations consultants, accountants



and management consultants now have CSR divisions, ready to advise on aspects of CSR strategy. Geoff Lane at PricewaterhouseCoopers describes his sustainability practice: "We advise large companies such as Aviva, BP and Sainsburys on CSR. We're ideally placed to do so not only because we have a network of 300 experts but also because we're able to put CSR issues in a broader context. Although the Sustainability division comprises only 30 of our 12,000 UK staff it is a fast growing area and one that is increasingly influencing the rest of our operations." In the same way, many in the PR industry claim that, since CSR is about reputation they are best placed to advise on the subject. Davies at BITC urges caution before accepting these offers of advice: "CSR is a real challenge for the PR industry. NGOs and other stakeholders tend to be very sceptical about PR messages, so companies and their PRs have to learn how to convey

CSR messages in a truthful and transparent way. In the same way, many argue that accountants tend to have a greater understanding of financial issues than they do of social responsibility. The key is to see how well the CSR division is integrated into the rest of the consultancy. CSR ought never to be a bolt-on activity. It must be mainstreamed and I would be very sceptical of any consultancy that offers it as a bolt-on service."

### Specialist CSR consultancies

Aside from the Big Five and the many consultants offering CSR consultancy in addition to existing services, there is a multitude of specialist CSR consultancies. Although this is a burgeoning market, with some estimates suggesting that there are now around 500 of them in the UK alone, CSR executives appear sceptical about their value. Julia King, Director of Corporate Responsibility at GlaxoSmithkline

argues that: "If you want someone actually to do your CSR work then it's worthwhile hiring a consultancy. But if you just want advice on how to set up the policies and programmes then organisations like BSR and the IBLF are your best bet. I also find it worthwhile to work with SRI analysts and NGOs to understand their needs. I'm constantly approached by CSR consultants offering me help, but I just feel that so few of them would really understand what it's like to run these programmes in a truly global company like GSK." Most companies, it seems, prefer to gain advice on the strategy and then to implement it using in-house resources, supplemented by external expertise in very specific areas. For instance, Edward Bickham at Anglo American has just completed a major project with environmental consultants, ERM, on the creation of a toolbox to allow operational management to improve social and environmental impacts. However, this is

### Case Study 1: British American Tobacco

For many, it is impossible for a tobacco company to be responsible. They claim that the core product does nothing other than kill and so to sell that product is in essence irresponsible. So, British American Tobacco shocked many in 2002 when it produced the first ever Social Report by a tobacco company. According to Head of CSR, Adrian Payne: "The commitment to CSR was made by senior management in 2001. It reflects our vision to achieve global leadership in the tobacco industry and the belief that this will be achieved through growth, productivity and responsibility."

BAT recognised that they needed help so began by hiring EQ Management to scope out the underlying issues and identify a representative global footprint for Social Reporting. The company also talked to AccountAbility, GRI and BSR and found them useful starting-points. "Although our situation is unique, those organisations were able to help us get us started, and, if nothing else, social reporting has showed us how widely the expectations of our shareholders diverge. Some want us to do nothing in this area, while others expect us to save the planet".

In the first cycle of Social Reporting, BAT Group companies from 14 countries took part and all followed the AA1000 process standard and the GRI framework. Bureau Veritas provided assurance on the reports. Payne says: "Another critical learning point for us was that once you've started down the CSR path you can't go back. You have to be in this for the long term." BAT Group Companies in another 10 countries have since joined the social reporting process and more will follow.

In response to stakeholder expectations in the first cycle of Social Reporting, last year MORI were hired to facilitate dialogues sponsored by the Institute of Business Ethics to help BAT draw up a Statement of Business Principles. As a result of this BAT developed a "Framework for CSR" and identified areas in which it could lead on certain issues, where it should work with others and where it ought to take more of a back seat. Payne describes how this model applies to underage smoking: "We can show leadership by ensuring that our marketing practices do not undermine efforts to combat underage tobacco consumption. We can work with retailers to ensure that products are not sold to those who are underage. We see it as the responsibility of society as a whole to reduce underage use of tobacco products."

The launch of the first Social Report in 2002 was a major event for the company as was its subsequent inclusion in the 2003 Dow Jones Sustainability Index. All in all, Payne has been pleased with the results: "We spend around £3-4million a year reporting across the globe on CSR, but we see it as an investment. It is of course difficult to quantify the effects but over time we're looking for better relationships with employees, consumers and politicians, amongst others."

We have much work still to do though. We don't claim to do it perfectly. We're still learning, and we're very open to ideas from outside. As examples, Payne also speaks highly of the brochure recently produced by the Institute of Public Relations that gives advice on how to approach operating and financial reviews and a recent report from Tomorrow's Company that puts the emphasis on "conviction CSR" rather than "compliance CSR". As Payne puts it: "For us CSR is much more than simply "box-ticking".





not to say that there is no place for specialist CSR consultancies. It may be that as the market matures, so fewer consultancies will remain offering services that are more highly valued by in-house CSR executives.

## The CSR Report

Whilst the majority of FTSE250 companies already produce a CSR report, the pending UK Company Law Bill will require all companies with a turnover above £5million to produce one. As a result, many UK companies will soon be wondering who can help with it. Most CSR leaders gather information in-house, often appointing a co-ordinator on each topic, and then use an external organisation for assurance. As already mentioned, AA1000 is a widely used system for verification, but a considerable number use accountants such as PricewaterhouseCoopers or KPMG. Assurance of these reports is generally not as stringent as that for financial reports, since the information is generally more wide-ranging and so difficult to verify. As a result many, including Ford and GSK, chose not to have their CSR reports audited at all. This has led to much, as yet unresolved, discussion in CSR circles on how to introduce greater rigour into CSR reporting. In the same way there is a recognised need for more effective promotion of these reports. Most are read only by a handful of analysts, journalists and NGOs. Companies such as Flag Communications are building reputations for producing well-designed and accessible reports, but increasingly companies are looking for innovative techniques such as online video promotion as a way to promote these reports. In general, however, new entrants to the world of CSR will have little fear of being embarrassed by under-funded, poorly researched reports, since they will hardly stand out from the majority. As Lane puts it: "It's incredible that so many companies, whilst spending millions of pounds on financial reports, will only spend £20,000 on a CSR report that covers a much wider area of activity and has much greater potential to damage the company."

## Costs and benefits

With so much advice and assistance on offer it can be difficult to separate the good from the bad, and as Paul Burke, Head of Social Accountability at the Co-Operative Insurance Society describes, choosing a bad partner can be damaging: "Although I have an excellent relationship with Fishburn

## Case Study 2: Co-Operative Insurance Society

The Co-Op has long been respected as a highly responsible company for its policies on ethical investment. In August 2002 the Insurance division appointed Paul Burke as Social Accountability Manager to ensure that the company was walking the talk itself. Burke admits that when he was brought into the role it was all fairly new to him and that he relied heavily on experts like Simon Zadek of AccountAbility to guide him through the early days.

Aside from AccountAbility, he has worked with a raft of advisers including Smart Company on stakeholder dialogue, Probus BNW and the Corporate Citizenship Company on community involvement, Forum for the Future on a £200k project investigating the value of CSR, Professor Paul Elkins on environmental issues, and various academic institutions such as Cranfield University and the University of Warwick.

CIS has produced four CSR reports. Burke describes how he has gone further than most in his auditing of these reports: "All of our reports have been audited by KPMG, but have also been reviewed by Simon Zadek. His input has been invaluable, going beyond the figures to look at where we as an organisation aspire to be in the future. My total assurance bill was around £100k in 2002, which is a lot of money, but when you set it against the fact that we manage assets worth £20billion, it's a relatively small amount of money. Particularly when you consider how important it is that people trust our figures."

Having had good and bad experiences with consultancies Burke offers this advice to those just started to build relationships in this area: "Only work with people who talk about how the world is, not about how they would like it to be. Be open and honest with your consultants and expect the same in return. Give due consideration to timescales. They are particularly important when it comes to the report. Ensure that there is ownership of every project both on the consultancy side and on your side. Most of all though, pick a consultancy with whom you have a good professional rapport."

Hedges, we did hire another PR agency who were next to useless. They charged a great deal of money for producing a model that was completely unrelated to the reality of our situation. We gained nothing of value from the relationship and really regretted working with them." Burke actually wishes there was a consultant to help companies pick the consultants, but he is the exception. Most would simply prefer to see a smaller number of high quality consultants offering value for money. The current over-supply will probably be corrected in the near future, but it will still remain important for executives to think carefully before paying anyone to provide advice or assistance on CSR. Most businesses remain sceptical over the value of behaving responsibly and fewer still are prepared to devote many resources to it. The resources that do exist must be spent wisely and so it would be prudent to heed advice on selecting consultants that is offered by those who have already been through the process. It is finally worth remembering that there are many excellent consultants out there and that if you get it right you will be gaining considerable competitive advantage. A

growing body of evidence is suggesting that in the twenty-first century companies that are socially responsible will reap the significant benefits of customer loyalty, employee motivation and organisational innovation. With the benefit of hindsight, that executive who thought himself so unlucky might even end up feeling glad that he was chosen to develop the CSR strategy.

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## Proud of what we do

Diageo is the world's leading premium drinks business with an outstanding collection of brands across spirits, wine and beer categories

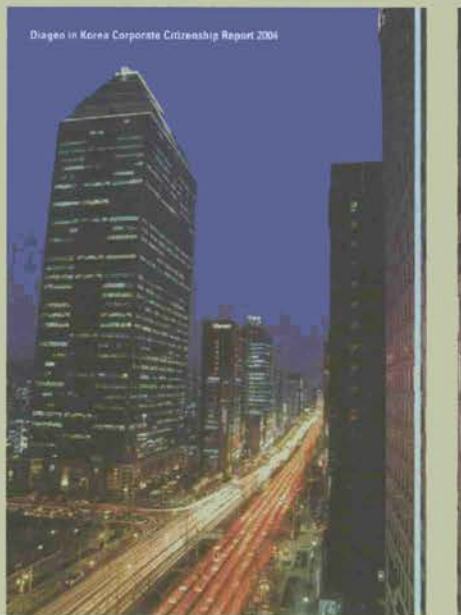
For Diageo, being a good corporate citizen is a natural part of doing business. As with all business activities, we rigorously manage, measure and evaluate our progress in addressing our impacts on the world around us.

In 2003 we began a programme of corporate citizenship reporting on our impacts and performance in the economic, social and environmental aspects of sustainability. Our main global report is augmented by more detailed accounts of our businesses around the world, the latest focusing on our operations in Korea.

Diageo is Korea's leading premium drinks business, with headquarters in Seoul, a production facility at Icheon and regional offices around Korea.

We have been serving consumers in Korea for many years, and consider the country one of the most important of our Asian markets. We play our part in enhancing the well-being of the community, and take care to protect the environment, our Icheon whisky bottling and distribution site receiving the government's highest recognition of environmentally friendly operation every year since 1997.

The report has been prepared in accordance with the Global Reporting Initiative 2002 Guidelines and we believe it presents a balanced and reasonable presentation of the economic, social and environmental performance of Diageo in Korea. We should be grateful to receive your comments on our report, and the issues that it raises.



All Diageo's country reports, together with the Diageo global citizenship report, are available to download from the corporate citizenship pages of [www.diageo.com](http://www.diageo.com).

Alternatively you may contact the corporate citizenship team in London by emailing [corporatecitizenship@diageo.com](mailto:corporatecitizenship@diageo.com) or writing directly to our offices in Seoul.

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# CSR watch

Reporting by **Neville Horley**

In this new feature, SDI looks at Corporate Social Responsibility (CSR) and sustainability initiatives at selected companies. All the corporations featured are involved in a wide range of CSR activities and here we zoom in to focus on particular aspects or initiatives.

## The Henkel Group's volunteer programmes

For Henkel, charity began at home, and has now extended all over the world.

The company's employee and pensioner social volunteer work grew out of initiatives in the eastern part of Germany after the company expanded there following the end of the Cold War. Now, volunteer activities come under two heads: the 'Make an Impact on Tomorrow' (MIT) Initiative, and a 'Friendship Initiative' that was so-named in 2003 but has its roots in the earlier regional project.

Henkel defines corporate citizenship as a "commitment to society which goes beyond business concerns." The company's commitment is seen through sponsorship support for social, educational, sports and environmental projects, as well as in the employee volunteer programmes – in which retired Henkel employees, or 'pensioners', play an active role.

### Friendship Initiative

The Henkel Friendship Initiative aims to provide help and support on a national and international scale, especially following catastrophes. This initiative provides short-term and direct help to people in need. Projects for children and youth as well as important help following catastrophes like the Elbe and Danube River floods and the earthquake in Algeria are

important milestones within this unconventional CSR component.

The success mainly depends on the volunteer work of many Henkel employees and pensioners. For example, the company's employees got involved in helping victims of the Elbe and Danube River floods during summer 2002, in an international effort. They donated goods and money, distributed relief supplies, helped in relief work and established a mobile advice centre and a helpline. Employees were given paid leave to help with the relief work. They then launched an appeal and raised a quarter of a million euros that the company matched twice over.

### MIT Initiative

Henkel supports its employees who volunteer for social, charitable, ecological or cultural activities. The company provides financial and in-kind resources and may also allow employees to take paid leave to do their volunteer work.

Support is granted on the basis of a project application to be filled in by the employee or pensioner. There must be a recognisable social, charitable, ecological or cultural involvement on the part of an employee. Personal commitment on the part of the employee is the basis for determining what support the company

will provide. Henkel follows the advice of its employees, trusting their competence and knowledge. This means the company's donations can be applied more effectively and transparently.

Henkel, its employees and pensioners, see themselves as a team in which the employees and pensioners act as a link between the company and its social surroundings. Employees are motivated by the feeling that their efforts are being supported, with the result that they identify more intensely with the company.

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To date, more than 2,700 employees and pensioners have contributed volunteer work to the MIT Initiative. More than 1,600 projects have been sponsored worldwide, including 430 MIT children's projects in over 70 countries, benefiting more than 25,000 children. These include work for children living with AIDS in Bangkok and Kenya.

## Volvo Car Corporation – partnering for gas

Planet Göteborg is a private-public partnership between Volvo Car Corporation, the local authorities, and gas supplier FordonsGas, for promoting alternative fuels – natural gas and biogas – in the Göteborg region of Sweden. The project has been a success, so much so that representatives of other cities and regions in Europe and beyond have requested visits and advice.

Volvo has been marketing gas-powered bi-fuel cars in Europe since 1995. The bi-fuel engine runs on gas, using petrol as a reserve fuel. The most common engine comes in two variants, burning either CNG (compressed natural gas, or methane, and it can also run on biogas) or LPG (liquefied petroleum gas which is a mixture of propane and butane). The benefits over petrol engines are less carbon dioxide, far fewer toxic emissions (nitrogen oxides, carbon monoxide, and hydrocarbons), far less ground-ozone generation and no particulate emissions.



Figure 1: MIT volunteers at Bethzatha AIDS Resource Centre in Kenya.



Sales of gas vehicles had not grown as expected, says Volvo, because of the limited number of gas refuelling facilities, and consumer doubt about the economic viability of gas technology.

The local authority saw that structural challenges had to be met to develop infrastructure and consumer confidence. All parties saw that the solutions would lie in dialogue and cooperation between the automotive industry, public sector and political interests. And in the mid-1990s the Planet Göteborg project was born.

Practical action has been taken in the form of long-term municipal and government incentives, a credible fuel supply infrastructure and – Volvo's material contribution – competitive bi-fuel cars, buses and trucks.

The local authorities produced legislation on benefits for owners of cars running on alternative fuels – for example free parking and various advantages for taxi operators. The aim is for 50% of the municipal fleet to run on alternative fuels.

As a result of the project, consumer confidence has grown. The cars still cost more to buy, but mainly because they remain bi-fuel and so need two fuel systems. Once infrastructure improves the petrol element can be left out. Running costs though are 30-35% lower than for conventional vehicles, and a number of incentives make the package even more attractive – free parking, company car taxation relief, and a promise of exemption from any coming congestion charge.

The number of gas-powered cars in the region increased from about 170 in 1997 to 1,600 in 2002 in a total car population of about 170,000. FordonsGas has established 18 methane filling stations in the region, six of which were opened in 2002, and 12 in 2003.

Supplies of locally produced biogas have also been introduced into the system through the 'Green Gas Principle,' a local initiative to stimulate development of biogas derived from waste. The local authority matches the amount of natural gas sold for use in vehicles with an equivalent amount of biogas that is used by households and industries.

### DaimlerChrysler – hydrogen future now

Sustainable mobility is the stated aim for this giant car corporation.

Cleaner fuel is one requirement. Daimler-Chrysler has its own five-step



Figure 2. Gas tanks on fuel cell urban bus.

'fuel roadmap' that suggests fuels will develop through:

1. Optimisation of engines;
2. Worldwide improvement of conventional fuels;
3. Development and use of largely CO<sub>2</sub>-neutral biofuels;
4. Development of hybrid propulsion systems;
5. Hydrogen fuel cells.

Even if a hydrogen economy remains a long way off, DaimlerChrysler has been testing various concepts for the vehicles since 1994. "(Fuel cells) represent the most significant foundations for sustainable mobility," and offer "the best future perspectives," says the company.

### Thirty prototype hydrogen-powered buses are now running in ten European cities as part of a pioneering two-year project

And it's not just theory: 30 prototype hydrogen-powered buses are now running in ten European cities as part of a pioneering two-year project, using fuel cells made by Canadian manufacturer Ballard.

The main focus for the cities is on improving air quality by reducing the pollution from fuels. Fuel cells, arrayed in stacks produce electrical energy from the chemical reaction of hydrogen and oxygen. The fuel cell powers the electric motor. The only emission is water vapour.

The process is around 65 to 75%

efficient compared to petrol engines that are 20% efficient, at best. The fuel cells are almost silent and have no moving parts to wear out.

The hydrogen fuel is produced by electrolysis using other primary energy forms – oil, gas, or renewables. When natural gas is used to produce the hydrogen, there is a carbon emissions reduction of 40% compared with petrol. The use of renewables produces even better results. As the company says: "In the final analysis, it is decisive for the vision of emission-free traffic as to whether or not the required energy can be obtained from regenerative sources."

Unless it is made on site, the hydrogen must be stored and transported to refuelling stations. DaimlerChrysler and others are investigating different technologies, all of which have advantages and disadvantages. The buses use compressed hydrogen, the most efficient system. The main disadvantage is the high volume requirement for the tanks that need to be eight times the size of a petrol tank. Another possibility is liquid hydrogen – denser, but the disadvantage is the technical challenge of a minus 253 Celcius operating temperature – and other methods still on the drawing board.

Alternatively hydrogen can be produced on-board by reformer systems. These use methanol, gasoline or sodium borohydride chemical as the primary fuel. DaimlerChrysler has built concept vehicles for each of these systems.

A successful hydrogen future requires the technology for the various parts of the energy chain to continue to advance. The efficiency and cost of fuel cells themselves, though, have dropped significantly in the last five years. DaimlerChrysler sees international field tests as vital for future development, to gain practical experience of the technology.

### ENQUIRIES

All three featured companies have extensive information and publications available on CSR issues. Much information is available their respective web sites:

[www.citizenship.henkel.com](http://www.citizenship.henkel.com)

[www.volvocars.com/citizenship](http://www.volvocars.com/citizenship)

[www.daimlerchrysler.com](http://www.daimlerchrysler.com)



# Eli Lilly's Corporate Responsibility

Eli Lilly and Company published its first corporate responsibility report in 2003. It is the company's intent that this initial report will be the beginning of an on-going effort of continuous improvement in its social, environmental and economic performance.

The foundation of this initiative is a collection of Corporate Responsibility Statements of Conduct. Those statements are:

Long-established core values guide Eli Lilly and Company in all that we do. These values are:

- Integrity – We conduct our business consistent with all applicable laws and regulations and are honest in our dealings with customers, employees, suppliers, competitors, shareholders, and the community.
- Excellence – We pursue pharmaceutical innovation, provide high-quality products, and strive to deliver superior business results. We continually search for new ways to improve everything we do.
- Respect for People – We maintain an environment built on mutual respect, openness, and individual integrity. Respect for people includes our concern for all people who touch – or are touched by – our company: customers, employees, shareholders, partners, suppliers, and communities.

Building upon these values, Lilly embraces the following corporate responsibility principles:

- We are dedicated to providing customers "Answers That Matter" through innovative medicines, information, and exceptional customer service. Our dedication will enable people to live longer, healthier, and more active lives.
- We discover and develop products through rigorous testing and in accordance with the highest scientific and ethical standards. We strive to create innovative products that are either first-in-class or best-in-class and fulfill the clinical promise of their Lilly label.
- We reliably manufacture and supply high quality medicines that are safe and effective.
- We comply with the laws and regulations of every country in which we conduct business and act affirmatively to verify our compliance.
- We conduct our business activities with respect for people and a commitment to diversity, equal opportunity, and freedom from exposure to improper conduct and discrimination.
- We listen and respond forthrightly to questions and criticisms of Lilly and the pharmaceutical industry. We commit ourselves to doing so with the utmost in transparency and timeliness. Our aim is to lead within our industry, improving its responses to the questions and criticisms it faces.
- We select and maintain relationships with suppliers based on the merit and value of their products and services. We will work only with suppliers that we believe are in full compliance with local laws and Lilly's standards of social, environmental, and economic performance.
- We safeguard and make proper use of nonpublic company and third party information to which we have access.
- We respect the privacy of individuals' personal information.
- We create and maintain safe and healthful working conditions.
- We respect and protect the environment.
- We comply with all laws and regulations that govern the manner in which we participate in the political process and interact with government officials and public international organizations.
- We create and maintain proper records, adhere to the highest standards of external reporting practices, and are as transparent, clear, and accurate as possible in providing information to our stakeholders.
- We price our products mindful of dual responsibilities – to realize the profits that will enable us to invest in discovery of the next generation of innovative medicines and to permit patients to have access to the value that our innovative medicines can bring to them and their families today.
- We are at the forefront of good corporate governance and have strong, independent, and diverse membership on our board of directors.
- We support charitable needs in communities where we operate and in areas where we have talents and resources that will make a difference.

To view Lilly's corporate responsibility report, go to <http://responsible.lilly.com/>



# FTSE4Good: influencing corporate behaviour

**Will Oulton**, SRI Advisor to FTSE, CRG Advisory Services Ltd, UK

**The FTSE4Good index has been operating for two years, providing both performance data on companies and a tool for investors demanding socially responsible investments. The index continues to evolve, and this year stricter human rights criteria were introduced.**

In recent years the socially responsible investment community in Europe has been one of the key motivators for improvements in corporate social responsibility (CSR) in companies. Supported by an increasing weight of assets linked to socially responsible investment (SRI) products, both SRI and mainstream asset managers are using company engagement and active share ownership to influence changes in corporate behaviour in social, environmental and governance matters. Unlike asset management companies, index companies producing SRI indices do not enjoy the leverage of ownership to influence corporate behaviour. However, through the FTSE4Good index, FTSE is making a significant contribution to raising the standards of corporate responsibility on behalf of investors and FTSE's clients.

## Growth of SRI

Socially Responsible Investment in Europe is attracting a broad audience of investors with a spectrum of different requirements and motivations. In recently published research commissioned by Eurosif it was estimated that €350bn (\$405bn) is managed to socially responsible investment strategies. Many of the early investors in this area were driven by the desire to align their ethical principles with their investments, and they sought investment funds that excluded companies whose business activities were at odds with these principles.

Today, it is clear that there has been a significant shift both in investors' perceptions of what socially responsible investment is, and in what they expect from companies in terms of CSR. Having suffered from the impact of recent corporate scandals, many investors now view social, environmental and governance issues as constituting potential material risks to their investments.

With the additional scrutiny on corporate governance, the focus of

investors and the media on those companies that are reluctant to engage with shareholders in an open and transparent way will increase. Recently

**Socially Responsible Investment in Europe is attracting a broad audience of investors with a spectrum of different requirements and motivations**

Brendan Barber the Secretary General of the UK's leading trade union body indicated that the TUC will play its part in developing a responsible investment culture and that union assets will be actively used to ensure that companies are well run and responsive to questions of social responsibility. This sentiment is also being echoed by many of the large public employee pension plans in the United States.

Seeing this trend, and that an increasing number of FTSE's clients were looking for customised benchmarks that reflected particular concerns relating to non-financial factors, FTSE developed and launched the FTSE4Good Index Series. The index provides a tool for investors, which as well as providing performance and return data, enables them to identify companies that have policies, structures and processes to identify and manage social, environmental and governance risks.

## Growing investor demands

Institutional investors are playing a major role in this development. Pension funds in the UK, through their statement of investment principles (SIP), are required to report whether they take social and environmental factors into consideration in their investments. However, it is clear that many of these institutions are delegating this work to their fund managers – who in some instances do not have the necessary resources to carry it out as intended.

**TABLE 1: KEY OBJECTIVES AND FEATURES**

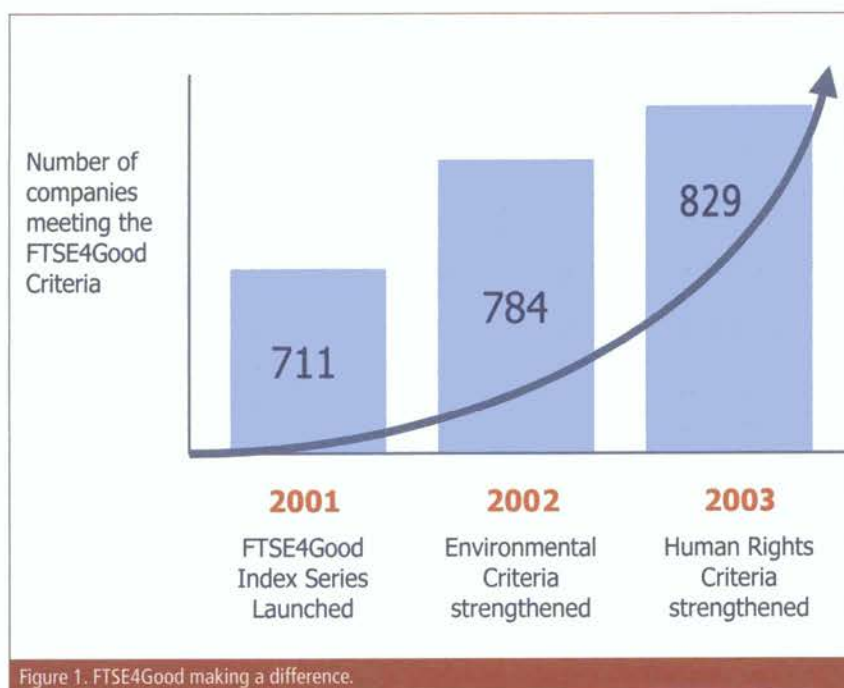
### Key Objectives

1. To provide a tool for socially responsible investors (SRI) to identify and invest in companies that meet globally recognised corporate responsibility standards.
2. To provide asset managers with an SRI benchmark and a tool for socially responsible investment products.
3. To contribute to the development of responsible business practice around the world.

### Key Features

1. Evolving selection criteria to reflect changes in globally accepted corporate responsibility standards and codes of conduct over time.
2. Challenging yet achievable criteria to encourage companies to strive to meet them.
3. Higher impact companies have to meet higher standards.
4. Transparent criteria and methodology.
5. Criteria based on respected codes and principles with new criteria subjected to a widespread consultation and approved by an independent advisory committee.





For many fund managers this poses a new challenge – to balance the needs of the client against the cost of operating and resourcing teams to engage with companies on their clients' behalf. Those in the industry will have noticed how many fund managers now describe themselves as being responsible for corporate governance.

This places fund managers in a difficult position, because this activity could be considered a 'dead weight' cost; the incremental return to the managers is debatable, whilst the fruits of their labours are arguably being enjoyed by all.

One reason for this is that many investors now expect a social responsibility and governance overlay on their portfolios, with the objective of contributing to the long-term protection of shareholder value. However, this strategy requires, in some cases, intensive engagement with those companies by fund managers. This is a big and challenging task, particularly as

there are many companies that are held in significant size by many investors. The result is that pressure is usually only applied to the leaders, or highest brand profile companies, within a particular sector.

Many investors now view social, environmental and governance issues as constituting potential material risks to their investments

Whilst these market leaders play a valuable role in driving forward corporate responsibility standards through innovation and advancement, there is still a significant majority of companies that have devoted little or no time or resources to addressing their social and environmental performance. It is amongst this lagging majority that FTSE4Good is creating significant pressure and is having a major impact in changing corporate transparency and disclosure.

## The Index Series

In July 2001 FTSE launched the FTSE4Good Index Series. FTSE4Good effectively provides a corporate socially responsible overlay to FTSE's highly successful All World Developed markets index. Today the FTSE4Good indices are used as benchmarks for a range of passive and active funds as well as the basis for a range of derivative instruments. The majority of these products are sold to European based investors.

To become and remain a constituent of FTSE4Good, companies need to meet a set of increasingly challenging corporate responsibility standards. So, what has the Index Series achieved in the way of driving forward global standards of corporate responsibility since it launched? A simple analysis is to measure the number of companies who have improved their disclosure and reporting practices – some having moved from no disclosure whatsoever – to make the grade required for entry to the index. Figure 1 shows that a significant number of global companies have made this grade.

## Criteria development

In the long term, all companies are being urged to work towards a model of best practice. This would mean that in future their performance would be easily measured against the FTSE4Good criteria system. For the time being, FTSE is contributing to improving transparency and accountability in companies around the world through the disclosure requirements presented by the index criteria.

The FTSE4Good criteria have therefore been set at a level that represents good practice standards for the majority, rather than best practice for the few. By setting challenging yet achievable criteria for the broad majority of corporate





| Human Rights Criteria for the Global Resource Sector |                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy                                               | New Criteria                                                                    | Details                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                      | Public Policy                                                                   | The company has published policies covering human rights issues that are clearly communicated globally (in local languages where appropriate)                                                                                                                                                                                                                                                                    |
|                                                      | Board Responsibility                                                            | The strategic responsibility for the human rights policy/ies rests with one or more Board members or senior managers who reports directly to the CEO                                                                                                                                                                                                                                                             |
|                                                      | ILO Core Labour standards<br>Or<br>UN Global Compact / SA8000 / OECD Guidelines | A statement of commitment to respect all the ILO core labour standards globally. The core conventions relate to: equal opportunities, freedom of association/ collective bargaining, forced labour and child labour. Alternatively signatories to the UN Global Compact or SA8000, or whose policy states support for the OECD Guidelines for Multi-national Enterprises are considered to meet this requirement |
|                                                      | UDHR                                                                            | A clear statement of support for the Universal Declaration of Human Rights                                                                                                                                                                                                                                                                                                                                       |
|                                                      | Guidelines on armed security guards                                             | Guidelines governing the use of armed security guards based on UN Basic principles on the Use of Force and Firearms by Law Enforcement Officials or the Code of Conduct for Law Enforcement Officials. Alternatively signatories to the Voluntary Principles on Security and Human Rights meet this requirement                                                                                                  |
| Management Systems                                   | Indigenous people                                                               | A stated commitment to respecting indigenous peoples' rights                                                                                                                                                                                                                                                                                                                                                     |
|                                                      | New Criteria                                                                    | Details                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                      | Implementing policy criteria and monitoring                                     | Monitoring the implementation of its human rights policy including the existence of procedures to remedy any non-compliance.                                                                                                                                                                                                                                                                                     |
|                                                      | Employee Human Rights training                                                  | Training for employees globally in its human rights policy                                                                                                                                                                                                                                                                                                                                                       |
|                                                      | Stakeholder consultation                                                        | Consulting with independent local stakeholders in the countries of concern                                                                                                                                                                                                                                                                                                                                       |
| Reporting                                            | Human Rights Impact Assessment                                                  | Evidence of a human rights impact assessment which includes the company identifying the major human rights issues it faces and integrating human rights concerns into its risk assessment procedures                                                                                                                                                                                                             |
|                                                      | New Criteria                                                                    | Details                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                      | Produce a human rights report                                                   | Reporting on the human rights policy and performance to the public in a published format                                                                                                                                                                                                                                                                                                                         |
|                                                      | Cover policies and management systems                                           | Covering policies and management systems as a minimum                                                                                                                                                                                                                                                                                                                                                            |

Figure 3. Human rights criteria for the global resource sector.

responsibility laggards, FTSE – through the FTSE4Good index – aims to encourage many companies to address corporate responsibility issues for the first time.

To be eligible for inclusion, a company must meet transparent global corporate responsibility standards in three areas:

- Human rights;
- Environmental sustainability; and
- Social and stakeholder issues.

These criteria are designed to reflect a broad global consensus on what constitutes good corporate responsibility practice. This is achieved by widespread market consultation, with the final criteria being drawn up by an independent committee of experts in the field of socially responsible investment and corporate social responsibility.

To achieve this level of support, FTSE has developed a rigorous multi-stakeholder consultation process, which

includes views and input from investors, mainstream fund managers and SRI specialists.

There is still a significant majority of companies that have devoted little or no time or resources to addressing their social and environmental performance. It is amongst this lagging majority that FTSE4Good is creating significant pressure and is having a major impact

The inclusion criteria are fully transparent and freely available. They provide companies with a reference as to what constitutes good practice standards globally, and a framework in which to develop their policies and management systems. Further details of the criteria can be found at [www.ftse.com](http://www.ftse.com).

## Company engagement

Company engagement is becoming a key element not only in the increasing development of socially responsible investment but also in the mainstream investment process. Many investors are planning to take a much more active role in ensuring that companies are run according to sound business principles, in order to protect their investments in those businesses. It is also true that some managers with specific investment objectives have been successful in affecting positive change in a small number of companies through engagement and cooperative activism.

FTSE can measure the impact of the index's influence by making the entry bar higher and more challenging. As the entry criteria for the FTSE4Good index get tighter, FTSE – through the FTSE4Good index – is increasingly engaging with companies to explain to them the background



to the changes and the specific requirements they generate. So far there have been two major changes to the index criteria, in the areas of environmental impact and human rights. In both cases there are many instances where a significant number of companies have had to put into place a range of policies, management systems and reporting processes, many for the first time. The key thing is that those who comply can be clearly identified, acknowledged and measured.

### Measuring human rights criteria

The principle of the index criteria is that there should be the highest standards for those businesses with the highest impacts. In respect of human rights, the FTSE4Good Policy Committee concluded that the global resource sector (oil, gas and mining companies) had particular exposure to human rights risks.

In April 2003, the revised requirements for companies in these sectors were announced. At that time, research showed that 18 companies in the index would not meet the revised standards. The requirements, detailed in Figure 3, took effect in September 2003.

At the index review in September, 11 of those companies comprising over \$270 billion market capitalisation had met, or had firm plans and commitments in place to meet, the new index criteria. For example, many for the first time publicly committed to respect indigenous peoples' rights,

### The principle of the index criteria is that there should be the highest standards for those businesses with the highest impacts

provide clear guidelines on the use of armed security guards and provide training for employees on these key policy elements.

On the other hand, the seven companies that failed to provide evidence of their compliance with the criteria were removed from the index. These were, Amerada Hess, Diamond Offshore Drilling, Falconbridge and Noranda, Alumina, Conoco-Phillips and Cairn Energy.

Of the 11 companies that met the challenge, many made significant efforts to increase their CSR behaviour and disclosure in direct response to the schedule and requirement set by the FTSE4Good Policy Committee. A

similarly positive story was seen when the environmental criteria were tightened.

### Conclusion

Since the creation of the index some two years ago, increasing numbers of companies are committing themselves to meeting the challenge posed by the expectations of a wide range of global investors as expressed in the FTSE4Good index criteria.

What is also clear is that many NGOs, investors and other followers of CSR are continually seeking answers to the question of how companies are responding to the demands of society. One indicator is the program of development and tightening of the FTSE4Good index criteria. This creates an irresistible challenge that most companies in the index appear willing to meet.

#### ABOUT THE COMPANY

The independent global financial index company FTSE Group launched the FTSE4Good Index Series in July 2001. Investors around the world use FTSE4Good to identify and invest in companies that exhibit and benefit from good corporate responsibility practice. FTSE4Good constituents are companies that are better able to manage their social and environmental risks and opportunities through meeting higher and internationally accepted standards in three areas: environmental sustainability; upholding and supporting universal human rights; and developing positive relations with stakeholders.

#### ABOUT THE AUTHOR

Will Oulton is the strategic advisor to FTSE Group for Socially Responsible Investments (SRI). Will is responsible for strengthening and advancing the FTSE4Good stock selection criteria, establishing local versions of FTSE4Good in markets around the globe and initiating listings of exchange-traded funds on the FTSE4Good Indices in the UK, US and other global markets.

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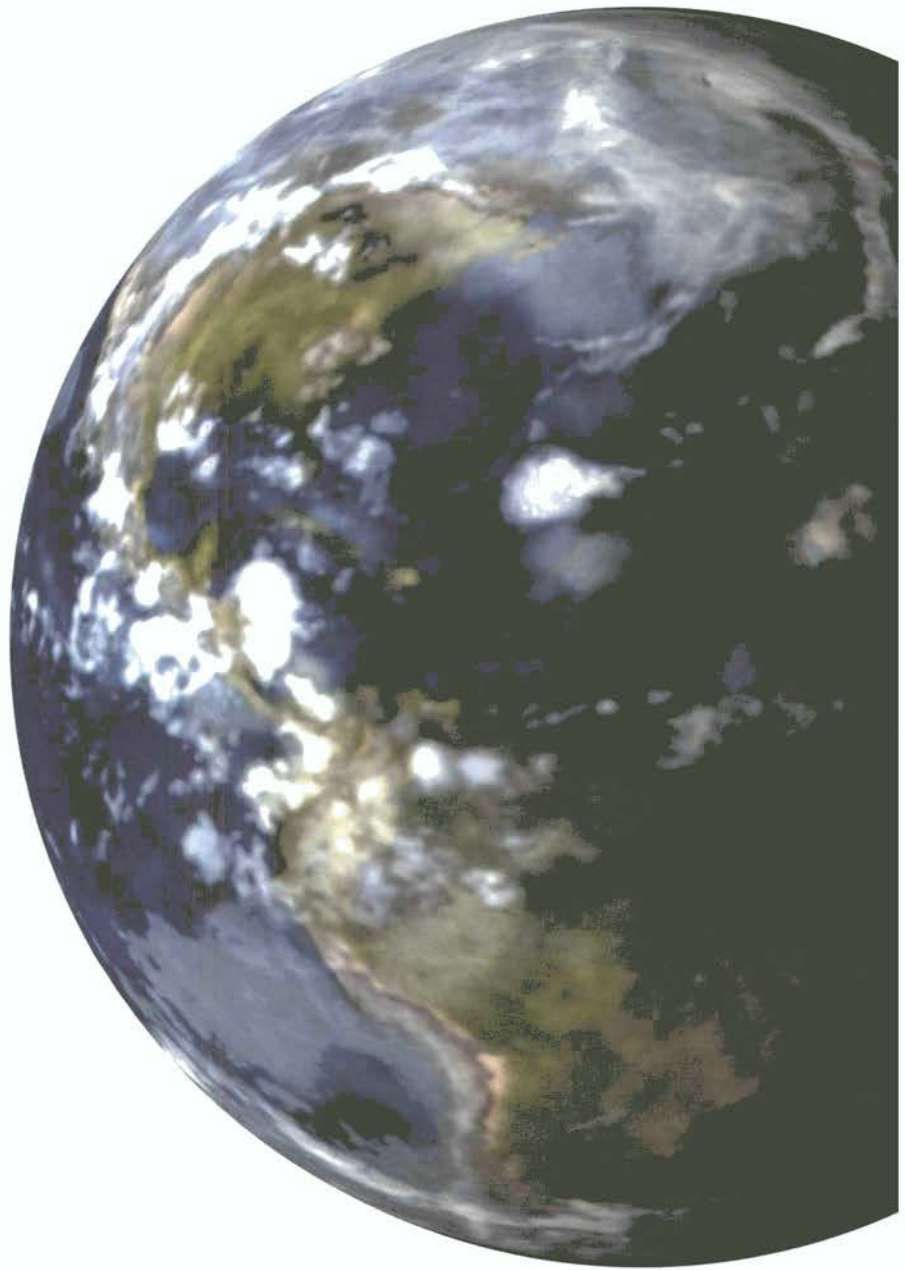
# It's not just small businesses **WE CARE ABOUT.**

Everywhere we do business, our belief in the fundamental importance of corporate social responsibility is readily apparent. Environmental sustainability is essential for our future and, as a result, our unique environmental policy guides every aspect of our business.

## **At Office Depot, we...**

- Use recycled paper in 100% of our copy and print centers throughout the United States and Canada, as well as in our corporate headquarters.
- Offer thousands of products containing recycled content.
- Enable our customers to recycle ink and toner cartridges – resulting in more than one million recycled cartridges in the past year.
- Promote corporatewide waste prevention and recycling initiatives.
- Give preference to products and suppliers aligned with our Environmental Procurement Policies.

We are determined to take leadership positions on issues that impact our planet. With your continued support, we will do so for many generations to come.



# **Office DEPOT**

  
*Caring... and making a difference*

Visit [www.community.officedepot.com/environment.asp](http://www.community.officedepot.com/environment.asp)  
to learn more. 1-800-GO-DEPOT



# “Office Depot is committed to the principles of good corporate citizenship, positive social impact and environmental sustainability.”

— Office Depot Value Statement

Office Depot is strongly committed to promoting and advancing environmental stewardship. The following Frequently Asked Questions provide an overview of the philosophy and practices that contribute to our company's industry-leading position.

## Q. What is the nature of Office Depot's commitment to environmental stewardship?

A. Office Depot's commitment to environmental stewardship extends broadly to the products we offer, the services we provide and the way in which we operate our business. We are proud of what we have accomplished to date, and we are excited about our vision.

## Q. What is Office Depot's approach to Environmental Stewardship?

A. Office Depot is a company guided by its values and strong code of ethics. Our approach to environmental stewardship is one of inclusion and consultation for the mutual benefit of the environment and our stakeholders. We promote improved environmental outcomes through collaboration and work with our stakeholders – including the conservation science community. This collaborative process enables Office Depot to engage its stakeholders in ways that:

- Produce solutions with integrity and purpose;
- Are responsible, transparent, accountable, realistic and actionable;
- Produce results that are tangible, measurable and reportable; and
- Promote and reward innovation and leadership.

## Q. What steps has Office Depot taken to demonstrate its leadership?

A. We recognize that our commitment to environmental stewardship requires a sustained effort, established goals and milestones, and corporate programs and staff to champion these initiatives. During 2003, Office Depot established:

- A corporate Office for the Environment to champion the principles of environmental stewardship throughout our global operations and to develop procedures for reporting on our environmental performance;
- An Environmental Procurement Policy to serve as the guiding framework for Office Depot and its stakeholders;
- A commitment to produce an Environmental Mission Statement — a living document that will outline our corporate initiatives and the environmental principles they advance — with measurable goals and milestones that will provide a dynamic, yet enduring road map for success; and

- An Auditing and Verification Policy to communicate our increasing reliance on third-party verification of the environmental performance of our paper products and the claims of our suppliers.

## Q. Specifically, what has Office Depot accomplished in its efforts to promote environmental stewardship?

A. Office Depot has achieved a number of significant milestones:

- In 2001, Office Depot worked with our suppliers to pioneer the development and broad distribution of Envirocopy, our 35% post consumer waste (PCW) premium recycled paper. As a result, Office Depot is the world's largest reseller of recycled paper.
- We offer thousands of environmentally preferable products through a variety of channels.
- Office Depot was the first office products reseller to receive independent certification of the environmental attributes of our PCW recycled paper from Green Seal, a non-profit organization that establishes standards for environmentally preferable products.
- In addition to our own house brand recycled paper products, we also carry paper products made with 50% and 100% PCW recycled content.
- To familiarize customers with the benefits and performance of recycled paper, we give away a free ream of our 35% PCW recycled paper when customers bring their used ink and toner cartridges to Office Depot for recycling.
- We have switched our more than 800 copy and print centers to use our 35% PCW recycled paper as the default paper in all black and white applications.

## Q. How is Office Depot supporting Forest Conservation and Protection?

A. Office Depot is working with our suppliers and the conservation science community to:

- Identify and phase out products sourced from forests that are rare, vulnerable and at risk from further disturbance or inappropriate management; and
- Identify and phase out products sourced from forests with exceptional biodiversity values if inappropriate forest practices endanger the long-term sustainability of these values — even if these areas are not currently “endangered.”

## Q. What is Office Depot's Environmental Paper Procurement Policy?

A. Office Depot recognizes that our commitment to environmental stewardship and the

conservation of our natural resources requires a sustained effort, underpinned by a policy framework to provide guidance and communicate the importance of these issues to our suppliers, customers and other stakeholders. To support these goals, our Environmental Paper Procurement Policy comprises ten guiding principles related to Recycling and Pollution Reduction, Sustainable Forest Management and Issue Awareness and Market Development. To review our policy in detail, visit [www.community.officedepot.com/paperprocasp](http://www.community.officedepot.com/paperprocasp).

## Q. Why is Office Depot pursuing auditing and third party verification of its suppliers and products?

A. Independent verification is the next step in promoting ongoing environmental stewardship. It signals a clear transition from “doing it” to “proving it” and is part of our vision to enable every office to be an “Office for the Environment.” By increasing our reliance on third party verification, we send a message to our suppliers and customers that we believe in policies that are responsible and actions that are meaningful. Our policy on auditing and third party verification can be viewed at [www.community.officedepot.com/auditingandverification.asp](http://www.community.officedepot.com/auditingandverification.asp).

## Q. Do Office Depot's environmental stewardship efforts extend beyond North America?

A. In 2003, Office Depot acquired Guilbert S.A., a leading European contract stationer. Guilbert has a longstanding history of support for environmental sustainability. Approximately 93% of the 250,000 cubic meters of wood used in Niceday/N2 products comes from recycled sources or well-managed forests, certified to the Forest Stewardship Council certification scheme. Many Guilbert products comply with environmental product standards, including those of Nordic Swan and NAPM, and external forest experts audit Guilbert's supplier companies. Guilbert announced a target of 60% FSC accredited components in 2003.

## Q. How can I learn more about Office Depot's environmental initiatives?

A. Visit our website at [www.community.officedepot.com/environment.asp](http://www.community.officedepot.com/environment.asp).

**Office DEPOT**



*Caring... and making a difference*



# Creative business leader development

Nathalie Mackin of Stretch, & Mark Smith of LEAD International, London, UK

Two London-based organisations with a commitment to sustainable development are exploring creative ways to make it a top priority for company executives too. Concentrating on the human capital within a business, they have developed a new leadership development programme in which business leaders gain skills and experience by working with local entrepreneurs in low-wealth communities – a true win-win situation for all concerned.

Large UK and US companies are usually familiar with the basic ingredients and core recipe to create successful Enterprises of the 21st century: a savvy dosage and balanced mix of economic viability, social accountability and environmental responsibility. But what mix does it take to develop the next generation of leaders who can steer them? And how can today's high potential executives rapidly acquire the vision, skills and experience they need to guide tomorrow's success?

In the East End of London, an unusual group of partners is starting to address this challenge, and is experimenting in a new space: a space that brings together small community-based organisations and enterprises, and large multi-national corporations; a space where community entrepreneurs and business leaders partner together, to learn, innovate and channel new resources, and together develop viable local enterprises that can benefit low-wealth communities.

This uncommon learning model to develop the next generation of business leaders and community leaders, is the fruit of a close collaboration between Stretch – a fair-profit Globalegacy company – and LEAD International: two London-based organisations with a commitment to sustainability.

## Beyond CSR

Fortune 500 companies are slowly recognising the need to engage much further in development issues and regeneration challenges. Statutory regulations, consumer lobbying, competitive pressures and industry changes now demand that companies be more responsible and accountable to their shareholders – and to all their other stakeholders. Forward thinking



Figure 2. Map of the area the programme is operating in.

companies are already reaping the benefits of beefing up their development agenda, and reinforcing their identity and values with employees, consumers and clients – and at very little cost. But does this system really work?

Critics argue that the Corporate Social Responsibility (CSR) hype often masks a poorly disguised marketing ploy for large businesses to promote

Fortune 500 companies are slowly recognising the need to engage much further in development issues and regeneration challenges

their values and brands. After all, does it not feel like hype when you realise the highly publicised two thousand volunteers per year of a large multinational actually add up to only four full-time equivalents because they each spend only half a day in the community; and that the budget for advertising and marketing a company's involvement in CSR issues will reach a quite unhealthy multiple of the budget allocated to the issues themselves?

Should there be more objective measures and watchdogs to govern the CSR space? Should we denounce companies that exploit the public's blind indulgence for cold advertising wrapped in warm intentions? Or are a few bad examples shedding an unfairly disapproving light on a majority of genuinely motivated players?

We can continue to fuel the already heated debate about the merits and challenges of CSR. Or we can choose to move on and stop artificially defending an industry that chief executive officers (CEOs), rightly or wrongly, do not consider core to their businesses. We believe there is an untapped opportunity to be more creative about how to advance development issues, by latching on to what really keeps CEOs up at night.

## Addressing CEO's core issues

The business model; top-line and bottom-line growth; a competitive edge; growth opportunities; innovation; leadership; developing talent – these are usually the issues at the front of a CEO's mind.

Classically, the harder skills of the



Figure 1. The LEAD model.



### New Experience: a taxi fleet with a social edge

Dave Walters, an experienced Finance Manager at Cadbury-Schweppes, joined Adam Sims, a bright 23-old entrepreneur in East London, to help launch a new cab business with a hip flavour and a social twist – a media-sponsored black cab fleet, that delivers profits to local projects, and creates local jobs by training unemployed people from excluded communities.

The strategy of the new company is to partner with renowned community organisations and global NGOs, and use profits to help improve the social, physical and economic environment of East London's poorest communities. In parallel, Adam is seeking to establish a key Partnership with a leading company for 30 months with a £500k sponsorship and superb media PR. The 12-month plan is to gradually introduce up to 100 taxis, and invest £100,000 into charitable projects. Adam worked with and was supported by The Environment Trust, a leading charity in East London, which provided an opportunity to explore the ecological dimensions of the business.

Dave worked with Adam as the operations manager for three months. He built a solid and detailed financial model, developed the brand identity for the company, co-wrote sales presentations and provided crucial strategy support and assistance in key meetings with prospective clients and financiers.

"The fellowship was a re-energising experience that gave me an opportunity to experience all functions of an organisation, often in the same day" concluded Dave after his experience. "The placement gave me a real insight into general management versus my largely functional experience to date. The opportunities to work on many areas far exceeded my expectations. There is much scope for developing strategic vision, insight, coaching skills, problem-solving and negotiation skills, and for handling conflict."

For this new experience model to work, this has to be first and foremost about delivering results. "The fellowship with Stretch and David has had a tremendous impact" says Adam, "David brought a high level of professionalism, fresh thinking and an objective opinion. He has added a wholly new dynamic."

The experience has helped boost the two of them. Dave is now off to grow Cadburys market share in Russia, and remains on the board of Adam's new company. Adam has just signed his first contract with advertisers – and is waiting for the next generation of business leaders to join him and successfully grow the business...



Dave Walters  
Operations Manager



Adam Sims  
Entrepreneur

business get ample attention from management, consultants and academics. The softer ones are harder to tackle. For CEOs today, the key issue is less about managing physical capital or financial capital, and more about how to manage human capital – today's limitation to growth, and tomorrow's key to success. The questions are: how to strengthen and develop new business models at a faster rate than is currently occurring; how to effectively expand into new markets and geographies; how to attract, develop and motivate the best talent to make it happen; and how to lead?

Perhaps surprisingly, CEOs can actually find new models of inspiration, ideas for growth and a vigorous entrepreneurial spirit where they may expect it least: in low-wealth communities.

### A whole new model

Working with four pioneering companies over the past year, Stretch and LEAD International have started to develop a new learning model in East London that develops future business leaders by sending them to work full-time for up to six months with local community entrepreneurs, to develop successful enterprises for the communities of East London.

Through the Stretch challenge, future corporate business leaders simultaneously lend their expertise and hone a new set of skills. Promising individuals from organisations such as Vodafone, BT and Cadbury-Schweppes undergo a challenging real-life leadership test,

with the support of regular training and coaching, and learn to adapt to a non-corporate, highly entrepreneurial community business environment. By working in this different business culture, future leaders learn to adapt quickly to new challenges, and to operate with a greater degree of creativity, autonomy, and responsiveness to local needs.

This is more than a leadership development experience to create highly motivated, entrepreneurial, and community-conscious global managers. First and foremost it is about delivering results for the community, and working with local entrepreneurs to develop ambitious sustainable business for East London. Community entrepreneurs value the influx of skills and expertise, but their primary demand is that their newfound partners deliver.

First and foremost it is about delivering results for the community, and working with local entrepreneurs to develop ambitious sustainable business for East London

The projects that the scheme has covered include: an innovative low-income housing solution using recycled shipping containers, developed with Leaside Regeneration; a hands-on professional college, with the Bromley by Bow Centre; a modern Community Centre under a Newham road viaduct; a

women's entrepreneurial hub; and a taxi fleet with a social conscience (see box).

This experience-based learning model also helps CEOs and human resources departments build competencies within their human capital, and to generate new business models for the growth of their company. Through highly managed assignments, future business leaders learn how to reactivate an entrepreneurial spirit at work, be effective in a different environment, build a solid business, and improve negotiation and communication skills. They also gain understanding of diversity of income situations, increased self-awareness, and the space to develop new insights, ideas and opportunities for their company.

### The rules for success

Working together closely, business leaders and community leaders must follow clear rules to ensure that this is a successful experience for all stakeholders – including the companies:

- Aim high: work together on an ambitious and realistic business, stretch talent, innovate;
- Have a solid plan: set realistic expectations and goals, be clear about what defines success;
- Focus on delivery: keep momentum and a constant goal to generate tangible results; and
- Be fully committed: be accountable to the community and the company 100% full-time.



### New Learning: Designing a practical training programme for the Stretch leadership experience

Moving from a corporate environment to a community business presents many challenges: different priorities, ways of working and environments – essentially very different cultures. Adapting to this environment, developing new models and challenging preconceptions is a major part of the learning associated with the Fellowship Experience. But fellows need to be prepared for the change, sympathetic to the world that they are entering, and effective from day one. Initial orientation training therefore needed to help answer two questions: 1. How to bridge differences between corporate and community environments? 2. What leadership skills do Fellows need to succeed in their assignments and beyond?

Building on LEAD International's experience of designing training that crosses national, cultural and professional boundaries, the orientation was divided into two highly interactive and transformative sections. The first explored the local social, political and physical environment, the local businesses, and their role in community development. The second focused on building leadership skills that the fellows would need.

1. Following the LEAD model (Figure 1), the orientation team helped fellows address the question of how to bridge cultural differences and understand their new environment. The focus was on carousel interviewing of local community representatives, interactive panel discussions with key stakeholders, community visits, and targeted interviewing in the community. This enabled fellows to collect information and focus on the issues that were critical to them.
2. LEAD International is a proponent of the leadership paradigm where leaders are facilitators of dialogue – leaders are dynamic individuals with a vision of the future and the skills and abilities to challenge the status quo, create change and inspire others. Training therefore concentrated on strengthening leadership skills that support interaction, dialogue, and social cohesion and developing a foundation of key leadership skills such as teambuilding, systems thinking, communication, collaborative negotiation and consensus building, ethical decision-making, and visioning. These skills enabled fellows to deal effectively with the complexity of decision-making in their new environments, where a multitude of ideas, interests, and actors demand a facilitated, collaborative and empowering approach to leadership.

#### A new class of leaders

Throughout the Fellowship, the team continued to provide practical support and guidance to help fellows constantly develop new skills and build on their experience, through regular business coaching sessions, innovation workshops and a final presentation to employers. At a final review session, the team helped fellows review their overall experience, prepare their re-entry in their company, and take the lead in strengthening the programme for the next class to follow in their steps.

Stretch works closely with LEAD International, and with its sister company Globalegacy London, to ensure that this is an intense and successful experience. To ensure this the teams work to:

- **Provide training and mentoring:** through orientation training (see box), regular business coaching and innovation workshops;
- **Closely manage process:** monitor progress, address challenges and constantly improve;
- **Be selective:** carefully select the community businesses and the participants; and
- **Engage the company:** create reporting

and other mechanisms to ensure that the company buys in to the experience and that the individual fellows continue to build on it once it is completed.

#### The path ahead

We believe that there are many other models that can be set up to address the core concerns of CEOs and simultaneously advance the issues of development and regeneration. The aim in this is to engage business leaders in practical discussions about how together we and they can address their core issues and create sustainable business models. Innovation should come from within, rather than from outside pressures. The next step for Stretch, LEAD and

Globalegacy International will be to roll out a similar system in new locations, starting with Johannesburg.

Perhaps not all companies will be as interested as those already signed up. But reluctance to innovate and to develop new business models that benefit all stakeholders would be bad news for creating a sustainable future, and ultimately for a company's growth. Many more community enterprises, in areas that are not currently the focus of mainstream CSR, could benefit from the talent of large companies, and in return, help companies tackle a truly core issue – how to accelerate their growth.

#### ABOUT THE ORGANISATION AND AUTHORS

Stretch aims to create specific and measurable business assignments for future business leaders to support community entrepreneurs in tackling urban poverty around the world. We seek to inspire CEOs, HR directors and talented future leaders by offering sound business tools that develop leadership skills, and develop low-wealth communities. We operate as a 'fair profit' company returning 6%/yr to our investors, and distributing one third of our profits to the communities we work in.

Leadership for Environment and Development (LEAD) International is a global network of individuals and non-governmental organisations,

committed to sustainable development. LEAD is an independent, not-for-profit organisation, established in 1991 by The Rockefeller Foundation. The LEAD network is coordinated through an international secretariat based in the campus of Imperial College London. LEAD carries out its mission through capacity development and strategic, outcome-oriented activities consisting of policy, research, action-on-the-ground, communications, and training.

Nathalie Mackin is the Managing Director of Stretch, a fair profit Globalegacy company.

Mark Smith is an Associate Director at LEAD International.

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# Principled banking with Equator

Reporting by **Neville Horley**

A quiet and sustainable revolution in private project finance took place when some of the world's leading banks developed the Equator principles. The principles are based on World Bank and International Finance Corporation policies that govern environmental and social issues. SDI interviewed Suellen Lazarus who as a special advisor at IFC has been involved with the principles from the start, as well as representatives of some of the banks that have adopted them.

**L**arge manufacturing and infrastructure projects need finance. And that finance comes from banks. Traditionally, those banks did not much mind what sort of project they lent their money to. But since June this year, a significant number of the world's leading private finance banks have signed up to a set of principles that commit them to concrete minimum standards for environmental and social assessment.

The Equator principles have been taken up enthusiastically by the industry – 20 banks have now adopted them. In the first ten months of this 2003 the 18 banks that had by then adopted the principles accounted for an estimated 78% of the project loan market. In 2002, the 18 banks collectively arranged \$43 billion of project loans. The biggest players, doing the biggest deals, are now Equator banks.

The Equator principles evolved out of a meeting of banks convened by the International Finance Corporation (IFC) in October 2002 to discuss environmental and social issues in project finance. At that meeting, the banks present decided to try to develop a banking industry framework for addressing environmental and social risks in project financing. This led to the drafting of the Equator principles. They are a set of voluntary guidelines developed by the international banks, based on the policies of the World Bank and its private sector investment arm the IFC. They establish a common framework to address the environmental and social issues that arise in financing projects and ensure they are implemented according to sound environmental management practices.

## Taking responsibility

In the preamble to the principles the banks recognise: "that our role as financiers affords us significant and socially responsible development." They aim to ensure "that the projects we finance are developed in a manner that is socially responsible and reflect sound environmental management practices." The preamble concludes with the



assertion that: "We will not provide loans directly to projects where the borrower will not or is unable to comply with our environmental and social policies and processes."

There then follows a statement of nine principles that outline the circumstances that must exist before loans will be provided to projects. The principles require that a project be categorised according to the level of environmental and social risk, from which certain steps follow, including the preparation of an environmental assessment for all projects that have more than a minimal adverse impact. An important additional element is that the principles also incorporate World Bank/IFC guidelines into the assessment process.

## The biggest players, doing the biggest deals, are now Equator banks

The guidelines have two primary components and two mechanisms. First, there are industry-specific standards that outline issues and practices to be followed by each respective industry. Second, there are environmental and social safeguard policies that apply to all projects regardless of the industry. These cover issues such as child labour, health and safety, and water issues. These latter will apply only in projects in developing countries because the banks felt the regulatory environment in developed countries was sufficient to cover these kinds of issues. The guidelines include cover consultation and disclosure.

The Equator principles cover projects in which the capital cost is more than \$50 million. Equator covers all project finance, including: oil, gas and power projects, large infrastructure developments, roads, mining, agro business, general manufacturing industrial steel, cement, and petrochemical plants. The scope is global.

## Interview: Suellen Lazarus

Sustainable Development International spoke with Suellen Lazarus, special advisor to IFC's Vice President of Operations, on 4 November 2003. The following is an edited transcript.

### The new responsibility

"The banks have always talked about sponsor responsibility. They have said that it's not up to them to deal with environmental and social issues, rather the sponsors are responsible for a project and its management. What is introduced with Equator is an implicit, if not explicit, acknowledgement that the banks have a role here too. That it's up to banks to make sure that sponsors do what they say they are doing, and to set a standard."

"There are two parts to the risk. First, the real financial losses that the banks have suffered as a result of not dealing up front with environmental and social issues and questions of sustainable supply. Second, is the reputation risk. NGOs have become aware that private banks provide a lot of project financing. So, when NGOs have issues with the projects they go to the banks. In a couple of cases there have been such aggressive brand attacks that it has really hurt the banks."

### Setting a standard

"What has been difficult in the banking industry is agreement on a common and appropriate standard. Before, a bank did not have a benchmark to judge whether the standard that the project sponsor was applying was adequate or not. Equator provides consistency across countries and industries. And that's what is so significant – a convergence around a standard. Now when sponsors are preparing projects for financing, they will essentially know what standard to use."

"It's hard to imagine that there's project financing going on that does not have at least one Equator bank involved; and if one is involved it means the project is done by Equator standards. Even when we talk to project finance banks that have not adopted Equator they say they're going to follow Equator."



"I think the reason banks chose IFC policies is because there is a very comprehensive set of industry standards that has been used across the developing world; and also there are the safeguard policies that cover social issues." It was also an important consideration that IFC standards are neutral; they are not associated with any one country. It is easier for banks domiciled in many different countries to adopt an independent standard.

#### Added value of Equator

"What's different about Equator is that it's a very specific set of procedures. Banks that used to want their projects to follow World Bank guidelines would add into the loan document: 'the sponsor covenants to follow World Bank guidelines' – but they were not precise about what that meant and nor did they monitor. Now, the Equator banks are very clear as to what they are imposing and they are taking responsibility for making sure what they are imposing is actively monitored. So, it's the ownership for implementation that really distinguishes Equator from what went before."

#### Who is missing?

"The first Japanese bank, Mizuho, adopted at the end of September. It would be nice to have a Spanish bank in there, and a Portuguese bank and a Nordic bank. There are two French banks already, but the French play a big role in project financing so it would be good to have more French banks."

#### Voluntary standard

"IFC played a role in facilitating and encouraging banks to use Equator. We are talking with the banks when there are implementation problems, and providing training to them on our policies and procedures. But we are not monitoring them. It is their job to implement Equator. They are not free to pick and choose which of the standards they follow though."

"The banks will be watching each other. And we play an important role when we are providing financing as part of a project. For example, with the Baku-Tbilisi-Ceyhan pipeline IFC is there, as are some other Equator banks including ABN AMRO and Citigroup. We are working very closely with the banks on this project."

#### Why the banks signed up

"For some banks, coming to Equator is risk management. They've come to see

that environmental and social issues are a business risk. In some cases they have seen reputation damage and financial loss. For some there is the desire to take a leadership position, to position themselves as a sustainable development bank – like Dexia in France. Rabobank in the Netherlands has a sustainable

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development department. Equator is a contribution to sustainable development, the minimum starting point for sustainability."

#### What the banks say

Standard Chartered adopted Equator in October 2003. The scheme is another addition to an impressive list of sustainability measures that it already operated. The bank is a signatory to the United Nations Environment Programme's Statement by Financial Institutions on the Environment and Sustainable Development. This includes a public statement of support for sustainable development as a fundamental aspect of sound business management. And it is a corporate member of the UN Global Compact, which challenges companies to demonstrate progress in supporting and advancing its

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for sustainability"**

principles in three areas: labour standards, human rights and environmental responsibility. As a result, the bank has had to make only very small changes to its procedures – "we were doing it anyway," Chris Sykes, head of corporate social responsibility told SDI. "But Equator does give an internationally accepted standard that all parties, including third parties not involved with a project, can see."

The force of the majority subscribing to Equator is powerful, said Sykes. "The majority is there, so if you want to be a big player in project finance you have to be too."

The Belgo-French banking group Dexia has been calling itself "the bank for sustainable development" since 2002. The chairman has appointed a special advisor on sustainable development, and the Equator principles contribute to Dexia's

sustainable development policy, Marie-Alice Lallemand-Flucher, a director at the bank, told SDI.

The majority of Dexia's portfolio concerns direct financing to local authorities, an area to which Equator does not directly apply. But the experience of funding the public sector has meant the bank has always given central importance to social and environmental aspects, said Lallemand-Flucher.

Dexia is now formalising its procedures for Equator implementation. It is preparing a "reporting card" that will be used to check compliance with the Principles before a project goes to the credit committee, said Lallemand-Flucher. Staff training is also being undertaken.

The 20 banks that had adopted the Equator Principles by January 2004 were: ABN, Amro, Barclays, Credit Suisse Group, Citigroup, Credit Lyonnais, Dexia, Dresdner Bank, HSBC, HVB Group, ING, Mediocredito Centrale, Mizuho Corporate Bank, Rabobank, Royal Bank of Canada, Royal Bank of Scotland, Standard Chartered, WestLB, Westpac, CIBC and KBC.

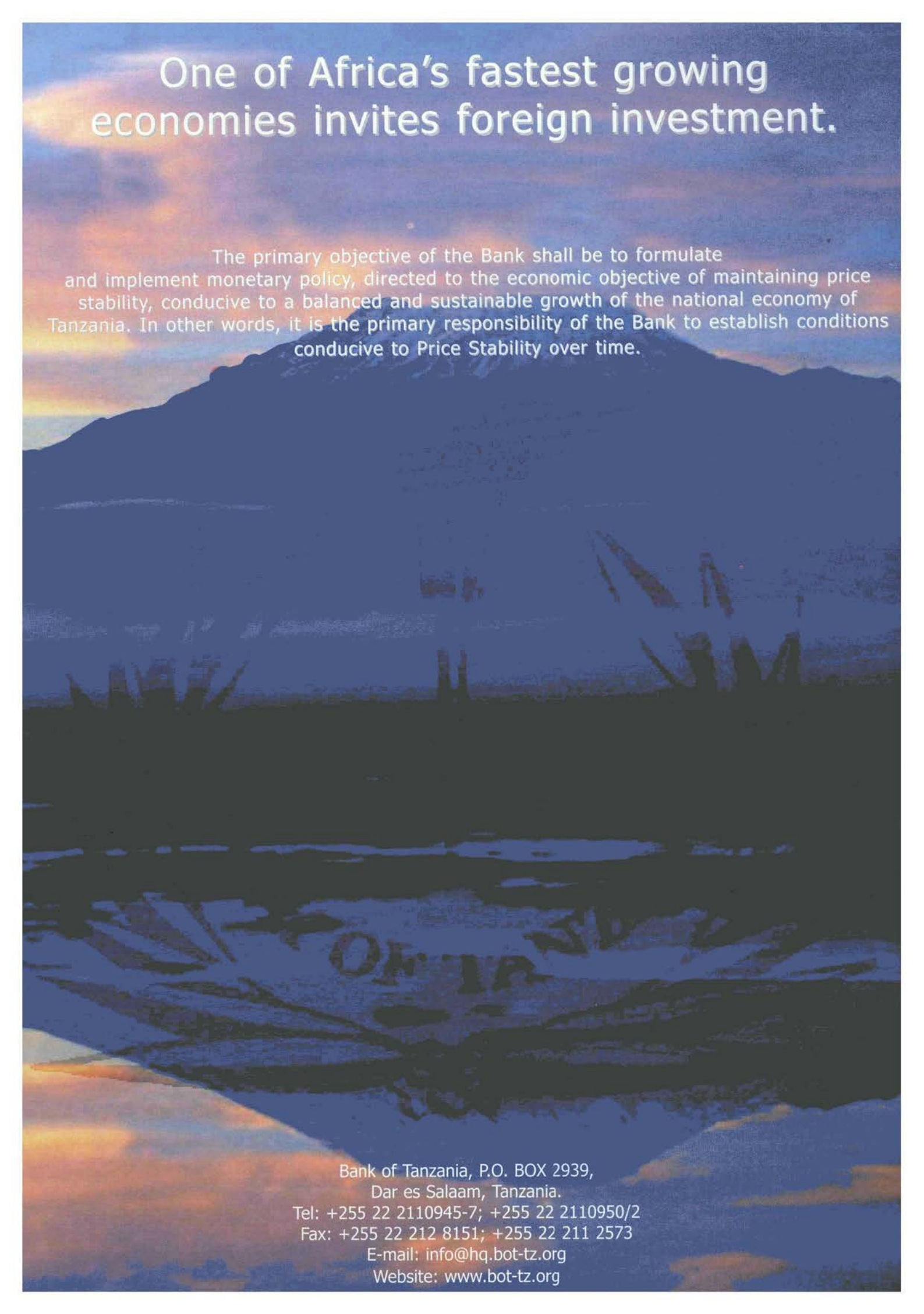
#### Legal comment

Linklaters, a prominent UK-based law firm in international project finance, issued a commentary on the Equator Principles in a letter to clients dated 23 July 2003. It advises clients to verify early that their projects' Environmental Assessments (EAs) cover the topics addressed by the Equator Principles and any applicable national, IFC and World Bank standards and guidelines. It also advises clients to plan the public consultation process from the outset, and warns that early breaches of the requirements on consultations are very difficult to cure. Social issues, including those concerning impacts on indigenous peoples, are likely to have particular prominence in any public consultation process, says the firm. It concludes by advising: "Above all, try to stay focussed on the big picture, despite the vast amount of detail that can be contained in EAs. Discussion of specific potential impacts should not distort the overall assessment of the project."

#### ENQUIRIES

Web site: [www.equator-principles.com](http://www.equator-principles.com)





# One of Africa's fastest growing economies invites foreign investment.

The primary objective of the Bank shall be to formulate and implement monetary policy, directed to the economic objective of maintaining price stability, conducive to a balanced and sustainable growth of the national economy of Tanzania. In other words, it is the primary responsibility of the Bank to establish conditions conducive to Price Stability over time.

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# The Built Environment



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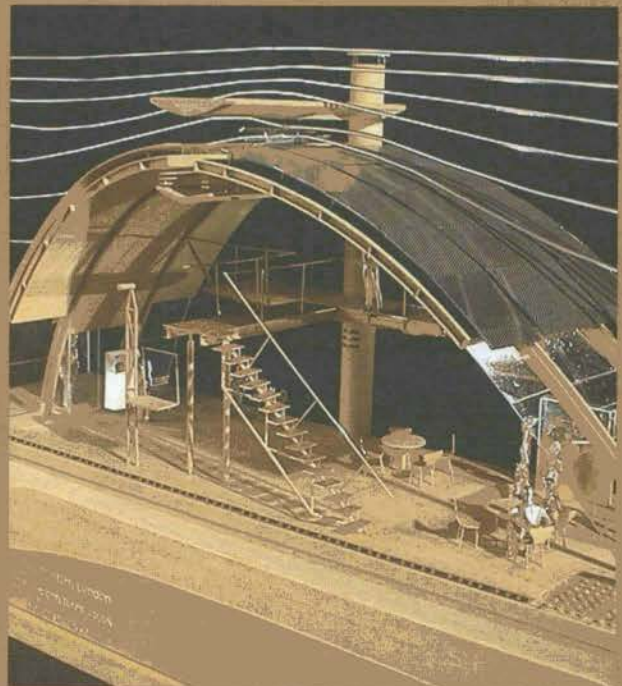
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Sustainability can be built: in this section cities are analysed as ecosystems, the concrete industry seeks better sustainability practice, and property and built environment processes are examined to diagnose the scope for sustainability improvements. Operators of the UK's packaging recycling scheme, that uses tradeable certificates, explain how it is designed to reduce waste and increase recycling. A building designer explains and illustrates how buildings can be both better and beautiful.



# An ecosystems approach to cities

Steve Halls, United Nations Environment Programme, International Environmental Technology Centre (IETC), Osaka, Japan

The explosive growth of cities presents tough challenges for urban environmental management. The urban environment is complex, including the natural, the built and the socio-economic environments. UNEP had developed the Cities as Sustainable Ecosystems (CASE) methodology that looks at cities as sustainable ecosystems. It integrates scientific, technological and management disciplines, and includes legal, economic and other systems, methodologies and tools relevant to sustainable development.

In the last two decades a better understanding of the effects of changing environments and ecosystems has been developed. Interconnectedness of these factors has forced particular attention on human lifestyles and living conditions that have a profound effect on their surroundings. Most environmental problems that we currently face can be traced back to the legacy of lifestyles that we are inheriting and leading as human beings. Nowhere is this more true than with urban lifestyles.

## Urban: the master culprit

Urban lifestyles and consumption patterns have far-reaching and long-term effects not only on the city, but also on an entire region. More people now live in and around cities than in rural areas. Urban areas have become the engines of growth for countries and regions. For example, despite the environmental and social problems that it is facing, Bangkok's contribution to national GDP has been estimated to be more than the combined output of all other cities in Thailand.

The result of this has been the explosive growth of urban areas, bringing with it a host of negative effects. Population concentration in increasingly smaller land masses has caused a drastic decline in the quality of living both in the residential and work fronts. Cities have, in effect, become a barometer of humankind's progress into the 21st century.

We can consider the growth and effect of an urban area in terms of the resources necessary to sustain its population. For example, for the Greater London area, the land mass that generates the resources necessary to sustain the population, called the 'urban footprint,' is actually slightly less than the entire land area of UK.

Similarly, according to the Earth Council's report, 'Ecological Footprints of Nations', Japanese lifestyles generate a demand for 6.25 hectare per capita, although the country can supply only 1.88 hectare per capita. This leaves an ecological deficit of 4.37 hectare per person that has to be met from outside

the country. The conurban region of Tokyo had a 1995 population of 26.8 million. For Tokyo alone, the ecological deficit is 9.2 times the total habitable land area of Japan.

The effects of urban activities have in many cases outweighed the relative advantages of agglomeration and centrality that they have offered. Thus, along with the benefits of urbanisation come environmental and social ills, including pollution, carbon emissions, and lack of access to drinking water and sanitation services. A wide variety of urban problems can be observed, grouped under two broad contradictory classes: those associated with poverty, and those associated with economic growth and affluence.

The world's cities take up just two percent of the Earth's surface, yet account for roughly 78% of the carbon emissions from human activities, 76% of industrial wood use, and 60% of the water tapped for use by people

It is helpful to look at urban environments from three viewpoints: the natural environment, the built environment and the socio-economic environment. It is the intersection and overlay of these that constitutes an urban environment. The inter-dependency and interdisciplinarity of the three dimensions have to be fully understood in the development of coherent and sustainable policies and programmes for the urban environment. Likewise, understanding the multiplicity of actors and activities – state, private, personal – and their interaction at different levels of urban growth processes and cycles, is critical in responding to the increasingly complex policy and investment choices that urban communities face.

## The ecosystem approach

A clear urban environmental policy framework is needed. It should include a system of prioritisation that

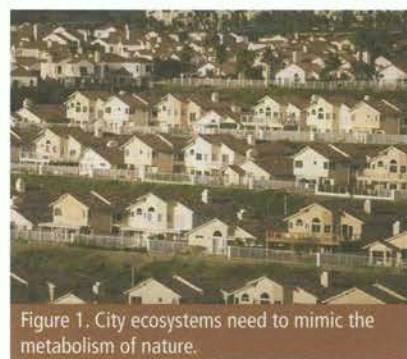


Figure 1. City ecosystems need to mimic the metabolism of nature.

incorporates human life, health, depletion and productivity of resource stocks, capacity of the environment, and systematic accounting measures.

Environmental policies have to be based on an understanding of the causes of environmental degradation and of the environmental impacts and cost-effectiveness of solutions, as well as an assessment of the uncertainties.

Policies should also contribute to greater public understanding of environmental issues through more open access to information and the decision-making process.

Operationalising environmental policies, therefore, requires the integration of many interrelated economic, environmental, social and cultural factors.

Consolidating ideas and issues together is the ecosystem approach. An urban ecosystem brings together resources, processes and products into a coherent system. The system exchanges and makes use of by-products and energy, and aims towards the reduction in the use of virgin materials as resource inputs; a reduction in pollution; increased energy efficiency; reduction in the volume of waste products requiring disposal; and an increase in the process outputs that have market value.

One of the guiding principles for the future will be to reform urban systems so that they mimic the metabolism of nature. Rather than devouring water, food, energy, and processed goods, and then belching out the remains as pollutants, the city could align its consumption with realistic needs, produce more of its own food and energy, and put much more of its waste to use.



Developing cities as sustainable ecosystems requires a radical increase in the productivity of the resources they use, and the goods and services they produce. This entails changes in production, design and technology, to stretch the utility value of energy and other natural resources. Closed-loop systems return every output harmlessly back to the ecosystem, or become an input to another process. This requires consumption and production systems that are modelled after the cyclical ecosystems of nature itself.

The urban ecosystem approach raises several critical needs:

- Identification of ecological footprints of cities. How will the footprint analyses lead to better understanding of urban ecosystems? Can they induce action among urban residents? How can better material flows be developed from footprint analyses?
- Global trends to develop local environment activities. Most global problems are a result of smaller, more local actions. What cause-effect cycles can be identified? What implications do multilateral environmental agreements have in inspiring local action?
- Develop partnerships among all local actors. What partnership dynamics are at play in an urban ecosystem? What are the success factors that will build such effective partnerships?
- Carry out in-depth and intensive scientific research. What lessons can we adopt from natural ecosystems and cycles to an urban setting?
- Existing environmental management functions and actions need to be integrated. Urban design, planning, implementation and management – particularly of infrastructure – is fragmented and uncoordinated. Where are the points of integration and overlap?

### Millennium Ecosystem Assessment

The Millennium Ecosystem Assessment (MA) – a multistakeholder international effort – is a four-year process designed to improve the management of the world's natural and managed ecosystems by helping to meet the needs of decision-makers and the public for peer-reviewed, policy-relevant scientific information on the condition of ecosystems, consequences of ecosystem change, and options for response. The MA will provide information and also build human and institutional capacity to provide information.

The MA will significantly increase understanding of the linkage between ecosystems and the goods and services they provide. This will enable the scientific underpinning to a wide range of national and international efforts to address environment and development challenges.

The first report was released in September 2003, and the peer review process continues during 2004.

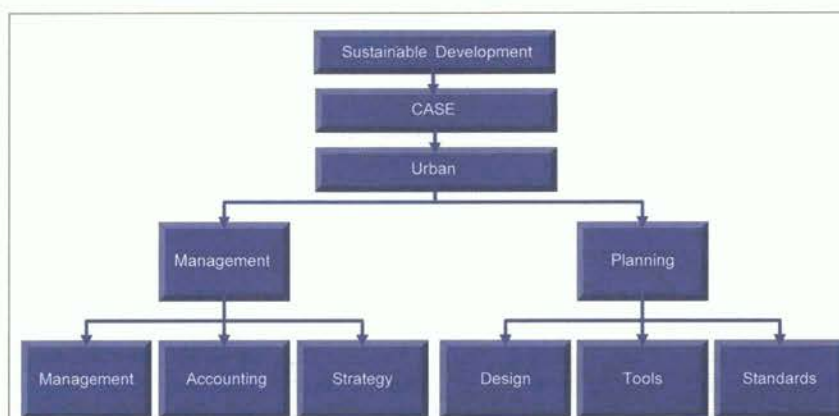


Figure 2. CASE: A Conceptual Framework.

### CASE

Sustainable cities cannot be achieved without developing a more sophisticated coherent intellectual framework. This framework should support the development of urban management and planning theories, as well as methodologies required by urban decision and policy makers and technical experts. To this end, IETC has developed 'Cities as Sustainable Ecosystems' (CASE). CASE deals with issues such as the interaction and relationship within and between cities, their impacts upon the environment and opportunities for all types of wastes to become useful inputs. It embraces the interactions of all urban activity and the environment, and how these can be transformed into a sustainable relationship.

The development of environmentally sound technologies (ESTs) must be underpinned by the development of urban environmental management strategies. Only then will it be possible to generate the wealth that is necessary for the restoration of the environment and at the same time improve the quality of life of citizens in a sustainable manner.

Past environmental problems have arisen primarily because of inappropriate management, so it is essential that new

management methods are researched and implemented. Unless cities change their management practices, the resources they expend on protecting the environment will be wasted. Underlying this dilemma is the failure to recognise the importance of management in the causation of the problems.

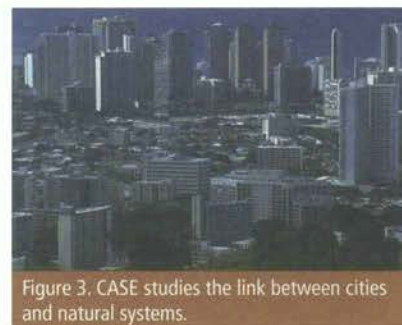


Figure 3. CASE studies the link between cities and natural systems.

CASE is the objective, multi-disciplinary study of urban and economic systems and their linkages with fundamental natural systems. It incorporates, among other things, research involving energy supply and use, new materials, new technologies and technological systems, basic sciences, economics, law, management, and social sciences. CASE provides a conceptual framework upon which understanding and reasoned improvement of current practices can be based.

CASE involves the integration of existing scientific, technological and management disciplines. It includes the legal, economic and other systems, methodologies and tools relevant to sustainable development.

Research and development in CASE provides the objective understanding and support required for the integration of environmental considerations throughout the economy of the city. It is also a necessary prerequisite for the development and implementation of economically and environmentally efficient regulatory structures, currently a critical policy deficiency.



CASE can be broken-down further into two separate sets of activities at the organisational level:

- **Management:** includes the development of competencies, organisations, methodologies, and rules and tools across the city, which generally improves the city's environmental performance. Examples include the development and deployment of green accounting systems, green planning practices, and green procurement, specifications and standards.
- **Planning:** includes the development and deployment of rules, tools, and data sets intended to improve the environmental preferability of policies and planning processes. Examples include development of process checklists and software. In each case, CASE activities require inclusion of life-cycle considerations in the analytical process.

Related activities include:

- Planning and implementing a series of studies to understand and model stocks, flows, and logistics of material movements throughout the city for all major materials, including both renewables, non-renewables and wastes. Environmental impacts and human/ecosystem exposure data could be mapped onto these models, providing the basis for developing environmentally preferable processes. Such data is essential for effective environmental regulation.
- Developing an integrated approach using Environmental Risk Assessment (EnRA) and Environmental Technology Assessment (EnTA) models of energy production and use, water usage and conservation, waste production and disposal, and transportation systems.
- Developing integrated models of urban communities, including small relatively self-contained cities, larger cities with surrounding suburbs, and large megalopolises. Such models

would include transportation, physical infrastructure, food, energy and other systems. This would facilitate identification of sources of environmental impacts, and potential environmentally preferable EST or mitigation options.

- Developing integrated models of specific urban sectors of particular economic, environmental, or cultural importance – including agriculture, forestry, waste and water management – which could then be used to understand how they might be affected by an increasingly environmentally sensitive world.

### Technology has the lead role

One of the hypotheses of CASE is that rapid evolution of environmentally sound technological (EST) systems is a prerequisite for improvement of quality-of-life in an environmentally sensitive world. The fundamentals of technological evolution and diffusion throughout the economy are, however, poorly understood. Even less is known about the optimum, or maximum, rates of technological evolution, the associated economic and labour costs and benefits (and how they could be optimised), and how such variables differ by class of EST. (For example, it is apparent that moving to a solar-hydrogen based energy economy will be significantly more difficult, and a far more lengthy process, than substituting for CFC-based cleaning systems in electronics manufacture.) The CASE approach to such issues may well produce valuable insights into:

- Investigating the interdependency of legal, economic, cultural, scientific and technological activities and policies as they affect environmental protection and the evolution of EST systems.
- Different regulatory tools and approaches in terms of how cities and citizens behave.
- Developing efficient public environmental management structures that

support the adoption of appropriate EST systems.

CASE can provide even information that can assist in the prioritisation and reordering of environmental values – for example, it can ask whether ecotoxicity, human carcinogenicity, or global climate change are more important, and measure them in the broader context of social values such as employment and private property rights.

This helps build broad consensus on issues: how, for example, can an urban planner be expected to design a green residential area when what is environmentally preferable cannot be made clear? This requires the development of comprehensive environmental risk assessment (EnRA) methodologies, which evaluate and balance risks and benefits on a systems-wide basis.

Cities must develop overarching legal, regulatory and economic incentive structures necessary to support the integration of environment into all urban activity.

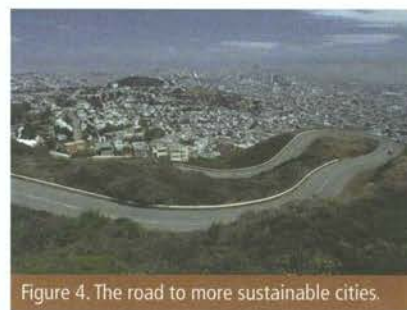


Figure 4. The road to more sustainable cities.

In a world where environmental perturbations are not restricted to political boundaries, it is obvious that the CASE programme, and others like it around the world, must be linked together in a collaborative international network. Existing international organisations, both quasi-governmental and private, must assume increased responsibility in this area and proactively support the integration of science, technology and environment in all urban activities.

#### ABOUT THE AUTHOR

Steve Halls is Director of the UNEP International Environmental Technology Centre (UNEP IETC) based in Japan. He is an engineer and biologist by training and has been a research professor and environmental scientist for the past 20 years. He has carried out projects for supra-national bodies, NGOs, government departments, and other bodies in industry and local government. His many fields of professional expertise include environmental policy analysis, industrial ecology, and the design and implementation of environmental management programmes.

#### ABOUT THE ORGANISATION

UNEP International Environmental Technology Centre (IETC), in Osaka and Shiga, Japan, promotes the application of environmentally sound technologies (ESTs) to address urban environmental problems to developing countries and countries with economies in transition. The IETC strategy is based primarily on Agenda 21. Its activities focus on urban environmental issues and the management of freshwater.

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# Concrete action for sustainability

Howard Klee, World Business Council for Sustainable Development, Geneva, Switzerland

The most widely used material on earth besides water presents a range of sustainability challenges that the Cement Sustainability Initiative is designed to tackle. Business plans have been drawn up to implement the findings of the research and stakeholder consultation that have now been completed. The aim is to create a practical and actionable agenda for the cement industry.

The Cement Sustainability Initiative (CSI) was set up in 1999 by ten of the world's leading cement companies under the auspices of the World Business Council for Sustainable Development (WBCSD) to produce an action agenda for sustainable development in the cement industry. The work programme of the CSI was started with a two-year research study conducted by the independent US Battelle Memorial Institute. It was designed to:

- Provide an independent review of the industry performance on various measures of sustainability;
- Identify a future vision of the industry 20 years from now;
- Identify clear goals, timeframes, and engagement plans for improving performance;
- Provide analytical and implementation tools for cement companies to use; and
- Provide a platform for ongoing engagement with others, particularly those outside the industry.

Publication in 2002 of 'Towards a Sustainable Cement Industry,' the report of the research findings, was followed by the launch of the industry's formal response, 'Our Agenda for Action.' Work has now begun on the last, but possibly the most difficult element – implementation.

## The issue for cement

There has been a dramatic increase in the expectations of what business should deliver to society. Beyond jobs and profits, companies are increasingly held accountable for social and environmental achievements. In an era where governments seem to do less, businesses are frequently asked to do more. Few doubt that sustainable development is a major challenge for society as a whole. The cement industry is working to learn how it fits into this new picture. What new roles must it play? What issues are important to stakeholders? How can this industry,

consuming significant energy and natural resources, become more sustainable?

Cement is the glue that holds infrastructure together, whether a home in Mexico or a runway at Heathrow. Concrete is the most widely used material on earth apart from water, with nearly three tons used annually for each man, woman and child on the planet. The most rapid market growth for cement today is in developing markets.

The cement industry is working to learn how, whilst consuming significant energy and natural resources, it can become more sustainable

Making cement creates a wide range of sustainability issues. Dust and noise from cement plants and quarries are specific local issues. More broadly, the fuels and raw materials used in the manufacturing process generate greenhouse gases, and controversy. Land used for quarries must be restored to help retain landscape and local biodiversity. Some issues have generated a great deal of emotional debate, such as those related to using alternative fuels and raw materials.

## Sustainability Initiative

The WBCSD's Cement Sustainability Initiative is a three-phase program including (1) independent research and stakeholder consultation (completed), (2) business planning (completed), and (3) action and progress reporting (ongoing). Against this background, the purpose of the initiative is four-fold:

- Identify key issues for the industry;
- Assess the industry's performance against key sustainability measures;
- Provide vision and recommendations for action; and
- Help manage an actionable business agenda for industry leaders to move forward.

## Project structure

The CSI project contains many elements common to other WBCSD sector projects. First, a working group, made up of member company representatives; second, external sponsors, who have contributed both financial and intellectual help; third, an independent assurance group, which serves as a 'referee' to make sure the project research is complete, fair and balanced; fourth, independent consulting and research organisations; and fifth, stakeholder engagement through facilitated dialogues. The WBCSD Secretariat serves in a coordinating role, as well as managing a

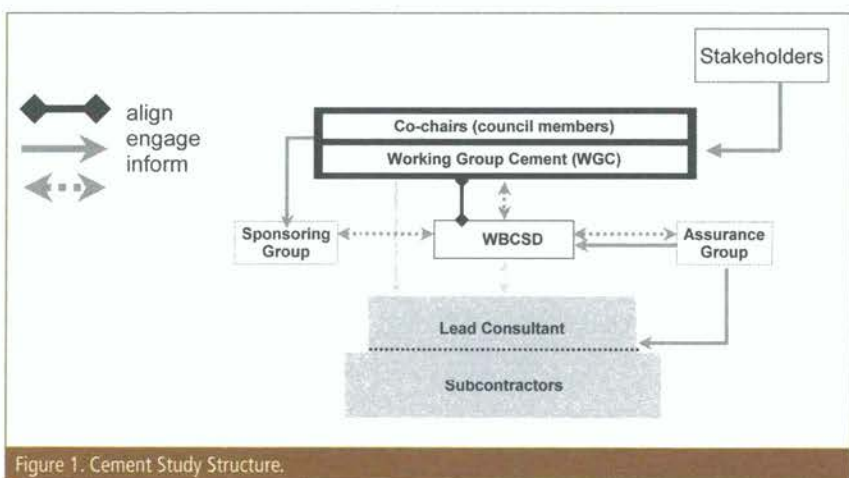


Figure 1: Cement Study Structure.



variety of external communications activities. Figure 1 illustrates the organisation of these elements.

A key feature of the WBCSD approach is that it provides an opportunity and framework for 'learning by doing.' Programmes aim to translate more general issues of sustainable development into practical and actionable terms for a specific industry.

WBCSD programmes aim to translate more general issues of sustainable development into practical and actionable terms for a specific industry

#### Project participants

Three initiating companies serve as co-chairs for the project. Ten other companies have joined since. The thirteen participating companies represent approximately 40% of world cement capacity. Each makes both a financial contribution of \$250,000 and a contribution of time and effort.

#### Sponsors

Members from more than 25 businesses, governmental and international institutions and foundations, have made intellectual and financial contributions to the research program. Business sponsors include ABB, Citigroup and Neshor Cement. Other sponsors include WWF European Policy Office in Brussels, the United Nations University in Japan, and the Portuguese Ministry of Science and Technology. The cement project also benefited from nine communications partners – all national cement associations – who helped ensure global outreach.

#### Assurance Group

An unusual feature of WBCSD member-led projects is the independent nature of the research. In this case, Battelle was retained to develop an independent view of the cement industry, including recommendations for future action. An Assurance Group reviewed the study plan to ensure the work represents the multiple viewpoints, which need to be included in sustainable development. Members of the Assurance Group included:

- Mostafa Tolba, former director of UNEP;
- William Reilly, former Administrator of US Environmental Protection Agency;
- Corinne Lepage, former Environment Minister of France;

#### Company participants in Cement Sustainability Initiative:

|                            |                        |
|----------------------------|------------------------|
| Cemex (Mexico)             | RMC (UK)               |
| Cimpor (Portugal)          | Siam Cement (Thailand) |
| CRH (Ireland))             | Taiheiyo (Japan)       |
| Italcementi (Italy)        | Titan (Greece)         |
| Lafarge (France)           | Uniland (Spain)        |
| HeidelbergCement (Germany) | Votorantim (Brazil)    |
| Holcim (Switzerland)       |                        |

Figure 2. The thirteen participant companies.

- Victor Urquidi, past President of Colegio de Mexico; and
- István Lang, past President of the Hungarian Academy of Sciences

#### Phase 1 – Content and form

A preliminary review paper was completed with the consulting firm Arthur D. Little in early 2000 to identify and define key issues facing the industry. Battelle completed a series of detailed research studies, integrated the results and produced recommendations. More than 14 separate organisations contributed.

#### Stakeholder engagement

The selection of research topics was further confirmed through a series of local stakeholder dialogues. The purpose

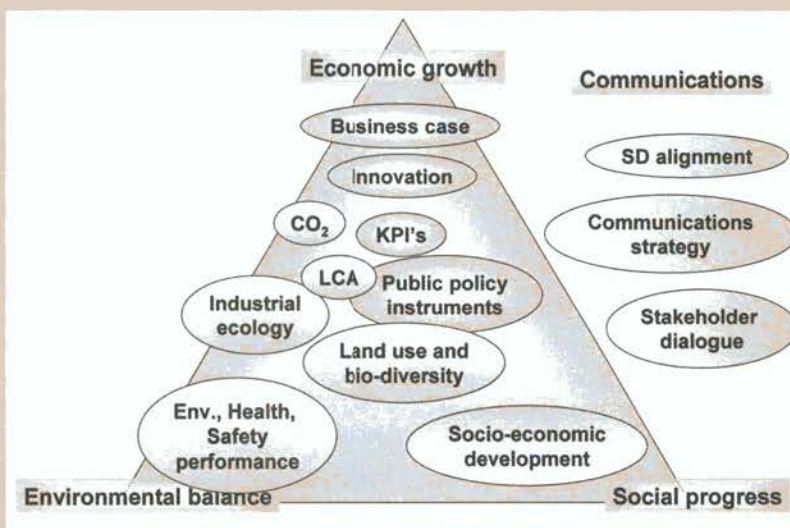
of these was: first, to fine-tune the study approach and issues (in Curitiba, Lisbon, Bangkok and Cairo), second, to discuss preliminary findings (in Brussels and Washington DC), and finally, to consider applications (Beijing).

#### Sub-studies

Most of the sub-studies fall within a typical sustainable development pyramid covering environmental, social, economic and governance matters. An additional set of issues dealing with communications was highlighted as critical, both in the initial review and during subsequent meetings with stakeholders. For example, one sub-study addressed key performance indicators, and another dealt with managing CO<sub>2</sub> emissions and climate change.

#### Sub-study Five: Key performance indicators

This study developed a preliminary set of 'key performance indicators' (KPIs) for the cement industry centred on current practice and strategic goals of sustainable development. These KPIs will be used for internal development of business cases and for external progress reporting of the cement industry.



#### Sub-study 8: Mitigation of climate change

The cement industry is responsible for 5–10% of man-made CO<sub>2</sub>. Approximately one ton of CO<sub>2</sub> is produced for each ton of cement. This sub-study examines options for reducing CO<sub>2</sub> emissions from fossil fuel use, cement making process chemistry and product transport emissions.

Figure 3. Initiative sub-stories.



The sub-studies were released in May 2002. Executive summaries have been prepared in eight languages to improve understanding at a local level in many countries. The results are publicly available on the project website, [www.wbcsdcement.org](http://www.wbcsdcement.org).

## Phase 2 – Business planning

An industry 'Agenda for Action' containing measurable targets and setting out joint and individual company commitments was released in July 2002. Measurable targets and performance timeframes are a critical part of the Agenda, which focuses on six key challenges identified during the research and consultation phase:

- Climate change management;
- Responsible use of fuels and raw materials;
- Improving employee health and safety;
- Emissions reduction;
- Local impacts on land and communities; and
- Communications and progress reporting.

A key element of the Agenda is the CSI Charter, which all member companies have agreed to implement.

## Phase 3 – Implementation

During the implementation phase, a series of different membership levels have been established to encourage broader participation. Core members continue to provide the majority of the funding and guidance. Participating members make a smaller financial contribution and are not members of the WBCSD. They participate in CSI Task Forces and have agreed to implement the conditions of the Charter. Project Partners bring special expertise or interest to a specific Task Force. Communication Partners (primarily national trade associations) continue to help promote and communicate with their members about the CSI. On each issue, the companies are working jointly to develop recommended guidelines for good practice, along with a variety of implementation tools. These will be made publicly available for the rest of the cement industry to use.

A task force has been established for each issue to complete the joint activities. Task force members include cement company participants in the CSI as well as other organisations that can contribute substantively to the work program. Individual companies are committed to the individual

### The CSI Company Charter

As part of our membership of the Cement Sustainability Initiative, and our ongoing commitment to sustainable development, we agree to:

#### Climate protection

- Use the tools set out in the carbon dioxide protocol to define and make public our baseline CO<sub>2</sub> emissions;
- Develop a climate change mitigation strategy, and publish targets and progress; and
- Report annually on CO<sub>2</sub> emissions in line with the protocol.

#### Fuels and raw materials

- Follow the guidelines developed for fuel and raw material use, when they have been developed.

#### Employee health and safety

- Respond to the recommendations of the Health and Safety Task Force on systems, measurement and public reporting.

#### Emissions reduction

- Apply the protocol developed for measurement, monitoring and reporting of emissions, when it has been validated;
- Make emissions data publicly available and accessible to stakeholders; and
- Set emissions targets on relevant materials and report publicly on progress.

#### Local impacts

- Adopt the Environmental and Social Impact Assessment guidelines, once agreed, and develop tools to integrate them into decision-making processes; and
- Draw up rehabilitation plans for our operating quarries and plant sites, and make them available to local constituencies.

#### Progress reporting and communications

- Integrate sustainable development programs into existing management, monitoring and reporting systems;
- Commit to publishing a statement of business ethics;
- Establish a systematic dialogue process with stakeholders to understand and address their expectations;
- Report progress on developing stakeholder engagement programs; and
- Develop documented and auditable environmental management systems at all plants.

It is our intention to complete these actions within 4 years of joining the Initiative.

Figure 4. The CSI Charter that all member companies agree to implement.

activities laid out in the agenda, and will report publicly on their progress.

#### TF1: Climate protection

The Climate Protection Task Force (TF1) aims to improve the quality of public information available, particularly for companies working to manage emissions accounting, emissions limitations, and emissions trading. The Task Force initially created a CO<sub>2</sub> Accounting Protocol in cooperation with the World Resources Institute. (See [www.wbcsdcement.org/pdf/co2-protocol.pdf](http://www.wbcsdcement.org/pdf/co2-protocol.pdf)) The Task Force will continue to review the Protocol, make appropriate technical improvements where new data is available, and promote its use in the Emission Reduction Trading (ERT) systems and Voluntary Agreements (VA's). Additional work is planned to deal with CO<sub>2</sub> allowance allocations within the EU as part of the EU greenhouse-gas

trading scheme. The chair of TF1 is Holcim, Switzerland, and co-chair is Cimpor, Portugal.

#### TF2: Fuels and materials

The Fuels and Raw Materials Task Force 2 (TF2) will develop good practice guidelines on the responsible use of fuels and raw materials, with particular emphasis on the use of alternative fuels and materials as substitutes for conventional fossil fuels and limestone. While these alternative materials are widely used, they are not without controversy. Active stakeholder involvement will be important to understand and address concerns raised by some local communities and NGOs, and to develop guidelines that address them.

Beyond the economic benefits that alternative fuels may bring to a cement plant in terms of reduced fuel cost are the environmental benefits of



reduced CO<sub>2</sub> emissions. Furthermore, in developing countries, well-operated cement kilns may offer an environmentally and economically sound way for managing the disposal of hazardous waste – particularly when other options include expensive new incinerators or landfill. Both these latter choices involve significant operating costs and pose future problems of possible ground-water contamination (in the case of landfills), or disposal of hazardous incinerator ash. The chair of TF2 is Italcementi, France.

#### TF3: Employee H&S

The Employee Health and Safety Task Force (TF3) is developing common standards and cross-company systems to measure, monitor and report on health and safety performance, which the individual companies can then implement. TF3 also intends to exchange information so that companies can share their experience quickly, identify common causes of injuries and reduce accidents. The chair of TF3 is Cemex, Mexico, and co-chair is CRH, Ireland.

#### TF4: Emissions reduction

The Emission Reduction Task Force (TF4) will develop good practice guidelines on monitoring and reporting significant emissions from cement manufacturing operations. Individual companies will then set their own emission targets and report publicly on progress in meeting those targets. The chair of TF4 is HeidelbergCement, Germany.

#### TF5: Local impacts

The Local Impacts Task Force (TF5) will develop guidelines for environmental and social impact assessment studies for the cement sector, to be applied to new projects. The guidelines will cover both cement plants and associated quarries. Initial work on the guidelines is being completed with help from Manchester University's Environmental Impact Assessment Centre in the UK. The chair of TF5 is Lafarge/Heracles, Greece.

#### TF6: Communication

This Task Force manages overall communications for the CSI with external audiences. Its members, primarily communication specialists from the member cement companies, are also responsible for communicating the CSI principles within their individual companies. It will oversee preparation of public progress reports

about the CSI in 2005 and in 2007, as outlined in the Agenda for Action. The chair of TF6 is RMC Group, and the co-chair is Cimpor, Portugal.

### Results so far

The CSI has produced three important results during the research stage:

- A guide for cement plant managers on managing and improving local stakeholder communications;

A CSI standard  
protocol for measuring and  
reporting CO<sub>2</sub> emissions, which is now  
endorsed by the UNFCCC and the World  
Resources Institute is now being used  
at more than 450 cement  
facilities worldwide

- A standard protocol for measuring and reporting CO<sub>2</sub> emissions, which is now endorsed by the UNFCCC and the World Resources Institute, among others. The group continues to make minor technical corrections to the protocol to improve accuracy and ease of use. It is now being used at more than 450 cement facilities worldwide; and
- A Health and Safety Working Group dealing with employee Health and Safety is establishing a common set of measurements to track performance across companies and an information

sharing system to help reduce the frequency and severity of injuries. Guidelines are also being developed to address the key operating areas: fuels and materials use, social and environmental impact assessment, and emissions measurement and reporting. Public progress reports will be issued in 2005 and 2007 by the WBCSD, although individual companies continue to report on their activities via their own publications.

### Conclusion

The CSI is a voluntary initiative, undertaken by the companies to build understanding and tools for change. It is one of the few voluntary, private-sector partnerships recently recognised at the United Nations World Summit in Johannesburg. The companies involved believe that sustainable development provides them with a comprehensive framework for tackling some of the biggest issues facing their industry today, such as climate change and employee safety.

The CSI is a voluntary  
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#### ABOUT THE ORGANISATION

The World Business Council for Sustainable Development is a non-profit organisation based in Geneva. It provides a framework for businesses to address the issues of sustainable development. WBCSD members include 165 businesses from around the world of which half are based in Europe, and a quarter in USA. WBCSD has four principle goals:

- to be the leading business advocate on the environment and sustainable development;
- to participate in policy development;
- to share leading practices; and
- to contribute through its global network to a sustainable future for developing nations and countries in transition.

#### ENQUIRIES

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# Beyond cement towards sustainable construction

*Global cement producer Holcim shares a vision for promoting sustainable development*

**A**s a global leader in the cement industry, Holcim has influenced the overall direction of the industry in tackling challenges from climate change to community involvement. Holcim is a member of the World Business Council for Sustainable Development and an active partner in the Cement Sustainability Initiative. It has now taken the step of establishing the Holcim Foundation for Sustainable Construction. The Holcim Foundation aims to further the cause of sustainable construction well beyond the boundaries of the cement industry and provide a vital contribution to sustainable development. Sustainable Development International asked Holcim CEO Markus Akermann to share his vision for Holcim and the Holcim Foundation. Sustainability in environmental, social and economic terms is embedded into the Holcim approach – for a company whose vision reaches well beyond cement.



**Why has Holcim embarked upon such a significant initiative aiming at impacts stretching far beyond its immediate sector?**

Holcim believes there is a need for all companies to engage in the sustainable development debate. We committed to building sustainable development into all aspects of our business years ago. Interaction between the company and society, on both a regional and global level, is part of that commitment.

The Holcim Foundation is very much an extension of the activities we have already been supporting as a corporate citizen. We now wish to create an impact beyond our own industry and go further than standard corporate social responsibility. We see the Holcim Foundation as a long-term opportunity to make tangible advances in sustainable development and thereby create further value – not only for the cement industry, its products, processes and partners – but also for society as a whole.

**How will the Holcim Foundation for Sustainable Construction blend local situations and global perspectives?**

The nature of the cement industry means that we are a global company and also very much a local one wherever we operate. We believe that we can learn from local experience and share this with others. Sustainability requires both the willingness and the opportunity to learn from one another. It is in pro-

viding the opportunity that Holcim sees its ability to contribute. Understanding and responding to the needs and expectations of all stakeholders, all those affected by our business, is central to our approach.

**How will the Holcim Foundation for Sustainable Construction benefit Holcim?**

We are convinced that this approach will help to attract additional business growth and improved earnings for the company – and that's how it should be. For any global company operating in a competitive and transparent environment, a commitment to sustainable development is only possible if there is real synergy between profitability and sustainability. The stronger the business reasons for change, the faster that change can be implemented – particularly in an industry which is as capital-intensive as this one.

**Why an independent Holcim Foundation for Sustainable Construction?**

A growing global consciousness of environmental value means that changing consumer preferences now demand new concepts for construction and building performance. We are not only ready to respond to these demands – we want to develop their momentum. The Holcim Foundation intends to encourage new pathways to sustainable construction whilst respecting the ways of different cultures and generations. Holcim wants to have a role in this process – to listen, learn, and interact.

*Holcim CEO,  
Markus Akermann*

**“Committed to building sustainable development into all aspects of our business”**

**“Go further than standard corporate social responsibility”**



**“Appropriate housing and adequate infrastructure are vital”**

**“Learn from innovation, and celebrate new solutions”**

**“New solutions have to be comprehensive and interdisciplinary”**

**“Accelerate progress toward sustainable construction”**

**“Bring together all the competencies globally available”**

**How will the Holcim Foundation for Sustainable Construction facilitate the exchange of ideas and experience?**

One prime purpose of the Holcim Foundation is to provide an authoritative and independent forum for all stakeholders. This forum will enable the sharing of best practice in a joint effort to promote sustainability in modern building and construction – both within and between the various regions of the world. The need for innovative solutions is compelling given the rapid rate of change in the modern world – exponential population growth, migration and urbanization, and development paths that collide with traditional ways of life and cultures. The Holcim Foundation’s work is independent of the economic interests of the Holcim Group, and enjoys decision-making freedom regarding its activities in sustainable construction. The Holcim Foundation’s only obligation toward Holcim as its sole sponsor is that it maintains proficient and appropriate use of funds.

**Besides being a forum for the exchange of ideas and experience, how will the Holcim Foundation for Sustainable Construction lend support to the best initiatives?**

Building and construction is not just about bricks and mortar, it’s about creating the context in which people live, work, move and interact. The Holcim Foundation will organize five regional awards and one global award to support initiatives in sustainable construction that are outstanding in their response to technological, environmental, socio-economic and cultural requirements and constraints. We believe a more “humanist” approach to the creation of the built environment with consideration for the human factors (cultural, generational and individual aspects) within engineering/architectural requirements is the criteria for judging excellence in sustainable construction.

**Do you see a major role for the cement industry in creating a sustainable response to these challenges?**

Very much so! The physical framework within which societies grow and develop can define opportunities and constraints and provoke antagonisms and dissatisfaction. Appropriate housing and adequate infrastructure are therefore vital components for enabling society to develop and flourish and impacts on quality of life. Holcim is convinced that building, engineering, construction and architecture have enormous importance in working towards a sound and sustainable future. In today’s context of rapidly rising populations and accelerated urbanization, radically different approaches to creating a sustainable built environment are imperative. In both developing and industrialized countries, the urban environment must change. Building and construction has to change and become more responsive to societal demands.

**The cement industry is a mature industry sector, yet the Holcim Foundation for Sustainable Construction is taking an innovative, radical view. Is there a paradox here?**

There is no paradox – the contrary, I’d say. Diversity of approaches to sustainable construction provides an opportunity to learn from innovation, and celebrate new solutions. Sustainability also requires reinventing the ways that industries have operated. As a leading cement producer we have been doing this for many years – on the production side, in resource use, emissions controls, ecological stewardship and through new thinking in community and societal interaction. We believe we have some solutions of use to others, and we know there are other solutions out there that would be of benefit to us, solutions which otherwise all

too often are destined to be applied where they emerge but are not given the chance to go further. Through the Holcim Foundation, this treasure-chest of accumulated experience can be put to active use by interested parties, enabling us to learn from the know-how of all stakeholders, in all cultures. The new global challenges I mentioned earlier require innovative solutions in engineering, architecture and construction if the world is to keep pace with today’s requirements. These new solutions have to be comprehensive and interdisciplinary. They have to be innovative, while building on the past to construct a better future. They have to express aesthetic excellence, as culturally determined. To me, balancing these different – sometimes seemingly contradictory – aspects is one of the most important tasks in sustainable construction.

**It is striking that a company such as Holcim should engage so directly with issues many other sectors leave to environmentalists.**

Ours is a practical approach – we are a practical company in a practical industry. The Holcim Foundation will select initiatives in sustainable construction for wider recognition through the Holcim Awards which are, or can become, broadly influential – initiatives that make a difference not only in their locality, but potentially also on the horizon of sustainability worldwide. We want to focus on innovative concepts that could contribute not just to debate, but to solutions that address the sort of problems I’ve mentioned as facing the building and construction sector worldwide. The Holcim Foundation aims to make a difference by utilizing the global reach of Holcim to accelerate progress toward sustainable construction by supporting the use of sustainable approaches for the provision of housing and infrastructure in developing and industrialized nations alike. The Holcim Foundation wishes to bring together all the competencies globally available in the building sector around a heightened awareness of their critical role in sustainability: circulating best practice, pioneering fresh solutions, inspiring young architects and engineers, planners and developers, to adopt new sustainable parameters for all that they build. You see the geographic localism of building as an activity is certainly an asset in cultural terms, but at the same time it’s also a hindrance to the spread of best practice. Learning by doing, and above all learning by sharing experience, is part of the Holcim Foundation’s ethos.

**Do the activities of the Holcim Foundation for Sustainable Construction only address experts in the construction industry?**

No, not at all. The Holcim Foundation aims to expand opportunities for recognized experts and young professionals alike to interact. Our idea is also to give a chance to the newest, the brightest, of one generation to measure themselves against the experience of those who have come before. Leading exponents of sustainable construction with a keen interest in training can draw inspiration from the young – with both contributing to the evolution of a new and innovative discipline. Naturally, support for sustainability means first and foremost thinking about future generations. After all, it is their future that will be in jeopardy tomorrow unless we change our ways today. I cannot emphasize too strongly that creating innovation in sustainable construction needs both experience and the urge to explore new horizons. The intermingling of hands-on knowledge and research, and also accumulated expertise, new skills and technologies is required. Today’s youth will be responsible for tomorrow’s buildings: that’s the importance of training and the



exchange of ideas and experience across geographic boundaries and generations! As young people carry such an important role in building the future, Holcim has decided to enter close cooperation with the Swiss Federal Institute of Technology (ETH) in our hometown of Zurich. The ETH will not only take a lead in developing concepts and criteria, but also in engaging other leading institutions. The first cycle of regional and global competitions target "Basic Needs" – housing, education, health care – the basic infrastructure essential for further development of any society. The partnering universities will be the Massachusetts Institute of Technology (MIT) in the US, Tongji University in Shanghai, China, the University of Witwatersrand in Johannesburg, South Africa and the Universidade de São Paulo (USP) in Brazil.

The Holcim Foundation for Sustainable Construction is clearly aiming for global outreach. Does it also make a start in establishing parameters of professional competence that can be applied generally?

Yes. That's something we anticipate! Of course, solutions identified as sustainable in one part of the world cannot just be transplanted to another. They must be reinterpreted and adapted, so that they comply with local constraints and conditions, be these climatic, economic, or cultural. Cross-fertilization spanning geographic boundaries is also a major objective of the Holcim Foundation. By being regionally selected and awarded, the Holcim Awards will progressively generate a community of recognized excellence in sustainable construction. Our point of departure is that sustainable construction is an evolutionary concept, both contextually and technologically determined. Lessons learned in one context have applicability elsewhere, but may require adaptation and certainly need explanation and illustration.



From origins in Switzerland, Holcim has grown to become one of the world's leading suppliers of cement, aggregates (gravel and sand), concrete and

So the Holcim Foundation for Sustainable Construction goes beyond spreading the word – is it also a promoter of excellence?

That's a good way of putting it. The Holcim Foundation intends to facilitate the identification of exciting and important new ideas through a team of broader specialists. Those that shine will be presented to people working in the construction business. It is, after all, the latter that through their efforts will build a bridge toward a sustainable future. Experience tells us that awards are an excellent way to encourage and inspire out of the box thinking, to explore new ways and means that might not have been considered in a traditional framework, and to draw attention to and identify excellence. The Holcim Awards aim to do just that.

Are the Holcim Group, the Holcim Foundation for Sustainable Construction and the Holcim Awards sharing the same philosophy?

Holcim, the Holcim Foundation and the two Awards schemes operate on different levels, but yes – I'd say they share the same philosophy: different cultures and different geographies, individual professionals and institutions, learning from each other and benefiting from acquired expertise and practical solutions, as well as from research.

This is a good motto for a company operating in a competitive marketplace, as well as for a Holcim Foundation. Both Holcim and the Holcim Foundation are committed to the Triple Bottom Line approach. It's the guiding principle for corporate as well as Holcim Foundation activities: a realistic set of principles too. I see the Holcim Foundation as helping us toward our objectives, at the same time as helping many others, in all the regions we operate in, to reach their personal and professional goals.

construction-related services. The Holcim Group is active in more than 70 countries worldwide.

In 2002, Holcim recorded sales of over 10 billion US Dollars. The Group currently employs more than 45 000 people. Holcim's vision is to provide foundations for society's future.

Group, and enjoys decision-making freedom regarding its activities in sustainable construction.

The Holcim Foundation for Sustainable Construction and partner universities:

The Swiss Federal Institute of Technology (ETH) in Zurich, the Massachusetts Institute of Technology (MIT) in Boston, the Tongji University in Shanghai, the University of São Paulo and the University of Witwatersrand in Johannesburg aim to intensify the exchange of expertise and innovation within the field of sustainable construction.

the basic infrastructure essential for further development of any society. Entries for the first round of regional awards will open in the last quarter of 2004, with a subsequent global award to be selected from regional award recipients. Selection of award winners will be made by juries comprised of independent specialists working in the international arena towards the sustainable development of society, building processes, construction materials and building projects.

**"Generate a community of recognized excellence in sustainable construction"**

**"Build a bridge toward a sustainable future"**

**"Committed to the Triple Bottom Line approach"**



The Holcim Foundation for Sustainable Construction promotes and supports initiatives and projects that identify construction-related solutions to today's pressing technological, ecological and socio-economic challenges and fuse these solutions with architectural excellence and a high quality of life. Formed in December, 2003, the Holcim Foundation's work is independent of the economic interests of the Holcim



The Holcim Awards promote innovation in sustainable construction via a series of regional and global competitions. Prizes at both levels will total two million US Dollars per competition cycle. The first cycle of regional and global competitions target "Basic Needs" – housing, education, health care –

[www.holcim.com](http://www.holcim.com)

[www.holcimfoundation.org](http://www.holcimfoundation.org)

[www.holcimawards.org](http://www.holcimawards.org)



# Building sustainable into development

Stephen Brown, RICS Foundation, London, UK

**Property and built environment industries could do a lot more towards the goal of sustainable development. Progress is possible if goals, and the areas where progress could potentially be made, are identified. And there are areas where pro-active action for change can be taken now.**

It seems that sustainable development is something we need to address in every aspect of our lives – nothing is spared the probing questioning to see whether it is part of the problem or part of the solution. Yet we are surrounded at every moment by one aspect of our daily lives that has as much to contribute – both negatively and positively – as almost anything else that we can think of. That is the buildings in which we work, live and relax.

## Responsibility needed

It also seems that, although we know that it is entirely feasible to build 'green' buildings – both residential and commercial – something stands in the way. While other industries have embraced the concept of sustainable development and compete to promote the sustainable credentials of their products or services, the property and construction industries have not yet demonstrated such a willingness. Why this is so is the subject of much debate, but one important factor is that the industry – unlike virtually all others – is supply-led.

If you are a customer looking for a building – either a new one or simply looking to move into new premises – you take what is offered to you, rather than deciding what you want. This is compounded by the fact that there are numerous players in the process. Imagine if a fridge company commissioned an external firm to design its fridges, then found a contractor to build them and then appointed an agent to sell them on their behalf to someone who wasn't going to use them but simply hire them out to the final end-user. This is not far from what happens in the property industry, and it is not surprising that, as a result, it is difficult to find anyone to take responsibility for seeking to advance sustainable development. No one really has much of an incentive. It has been called the 'vicious circle of blame,' and is something that the industry really needs to address if it is to play its part in helping achieve the type of world that we all want.

## What can be achieved?

The RICS Foundation, the research charity established by the Royal Institution of Chartered Surveyors, commissioned Upstream, a sustainable development company with particular expertise in the built environment, to carry out research into what can be done to address this issue. Of course, before we can make progress, we need to know where we are trying to go.

It is difficult to find anyone to take responsibility for seeking to advance sustainable development. No one really has much of an incentive

What are the characteristics of a sustainable built environment? It is possible to identify some of key attributes. These will be dependent on location, but include some, if not all, of the following:

- They would make effective and efficient use of land – including land re-use – and they would be designed for sustainable flexibility. They would be planned to reduce the need for travel and its related impacts and they would provide a balance and mix of uses to support social, economic and environmental objectives. They would be of sufficient size, scale, density and the right layout to support basic amenities;
- They would use sustainably sourced building materials and make efficient use of energy and water in the production, manufacture and transportation of materials in the construction process and in the operation and management of buildings;
- They would integrate biodiversity plans in layout and design and they would provide public open spaces including some green spaces;
- They would seek to encourage diversity (such as mixed uses,

different age groups, different ethnic groups and religions) and promote local employment and economic development; and

- They would provide a healthy, safe and secure environment and equitable access to facilities and services.

This list is not comprehensive since different locations will offer different economic, social and environmental priorities and opportunities. However, it does cover several of the most commonly mentioned attributes of a sustainable built environment – and serves as a useful starting point in seeking to understand the application of this complex concept to the equally complex workings of the built environment.

What is also interesting about this set of characteristics is that it goes beyond simply looking at the design and construction of a building, but considers the building within its wider context. An energy efficient building is not necessarily sustainable, if it is in the wrong location. Nor is a building that is incapable of adapting when new demands are placed upon it.

## The property process

The processes of creating and managing the built environment are numerous and complex. Figure 1 represents one possible version of the property process, to show the points at which different property actors may play a part.

This suggests that there are certain actors, such as developers and agents, who play a critical role throughout the commercial property process, whilst there are others, such as economic consultants and planning consultants, who only play a role at particular stages in the process. It also highlights the important role of architects and engineers as professional advisors. In addition, it is interesting to note that in the earliest phases of the process, evaluation and acquisition, design and costing and obtaining planning permission, there is a relatively high number of actors involved. This is also evident in the construction phase.



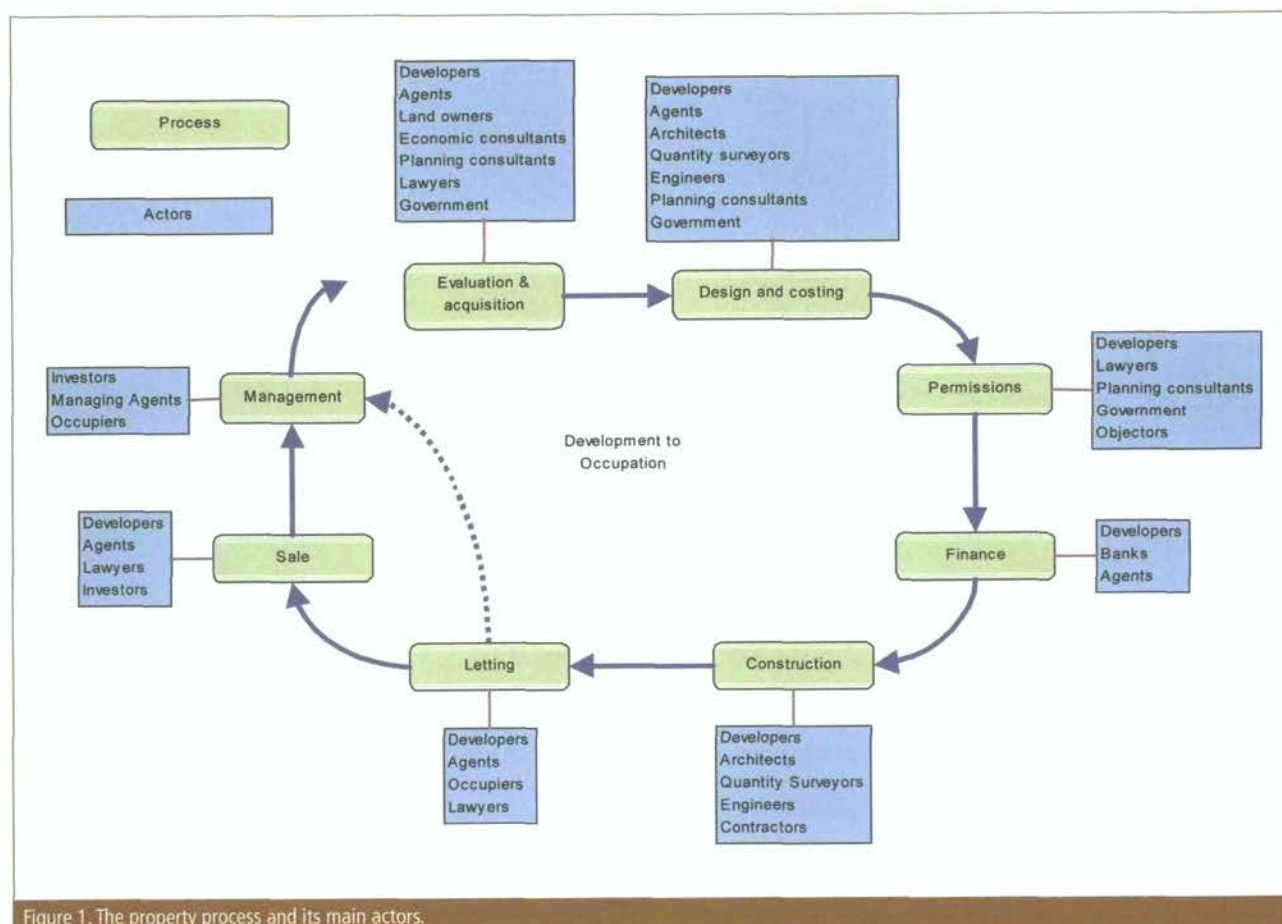


Figure 1. The property process and its main actors.

It is likely, therefore, that these actors and these phases of the process will be the critical ones in terms of identifying the most effective points of intervention for the integration of sustainable development into the commercial property development process. Indeed, experience suggests that sustainability attributes are most effectively taken into account at similar points in the commercial property process to those identified in the figure – design and costing, acquisition of planning permission, construction, and in the final occupation and management of the building. This, therefore, introduces the key point that, whilst awareness of sustainable development has increased markedly over recent years, the commercial property process continues to be driven by conventional notions of the issues. That is to say that, within the legislative and regulatory framework provided by national, regional and local government (in particular, the planning process), the financial imperative is dominant. This is so both in terms of the actors that have the most influence (such as developers and investors) and those factors that are seen to have the most importance (market demand and investor criteria).

### The drivers for change

If the foregoing is the case – and experience suggests that it is so – what factors are there that might bring about change? Whilst there is undoubtedly a social and environmental imperative for addressing the issues raised by

Awareness of sustainable development has increased greatly over recent years, but the commercial property process continues to be driven by conventional notions of the issues

sustainable development, a strong business case is needed to drive businesses to act. There are three key areas in which drivers for change can be found:

#### Legislation and regulation

Increasingly, the property industry has to comply with UK and European legislation. Much of this – such as Building Regulations, the Disability Discrimination Act and the Climate Change Levy – relates to sustainable development and the built environment. In addition, the regulatory framework

that governs the development and use of buildings – particularly planning regulation – increasingly seeks to support sustainable development.

#### Best practice

Beyond compliance, the UK property industry is increasingly aware of the need to develop new standards of good and best practice.

#### Campaign pressure

The activities of NGOs, such as Greenpeace and Friends of the Earth, and of other direct action campaigners, increasingly impact upon property development. Firms have to guard their reputations with increasing care – and the way in which they approach property development is becoming a key aspect of that.

How can we make most use of these key drivers of change? The research by Upstream suggests four key factors need to be addressed. These can be divided into two sets: active and passive. There are two passive enablers: the need to increase information and skills, and the need to look at the mismatch between costs and benefits. These are necessary, but not in themselves sufficient, to bring about change. The other two factors are more pro-active facilitators. These are market demand – specifically



from occupiers – and government leadership – both as a major procurer of property and through the legislative and regulatory process.

Market demand

It is clear that despite the good intentions of investors and developers, there is little evidence of effective market demand for sustainable properties. Nevertheless, it is also clear and generally accepted, that an increasing number of companies that occupy property already have environmental and/or sustainability policies that express their commitment to such development, even if this has yet to be seen in their property procurement practices. There is considerable ignorance in the property market about the costs and benefits associated with the construction, operation and use of sustainable buildings. What is required is a much better and more informed dialogue with occupiers.

Government leadership

The role of government is essential in delivering sustainable development. Government needs to give a stronger lead, both in its own property procurement practices and in reinforcing its commitment with appropriate legislation, regulation and incentive. Despite all that has been done so far to engage with those responsible for the built environment, there still needs to be a greater commitment from government to create and put in place the necessary framework of incentives and penalties within which the market can operate.

For example, given the evident importance of planning criteria in the property process and the fact that sustainability implies a resolution of economic, environmental and social issues, not only should sustainability be the central and driving force of planning policy but, conversely, planning policy should be one of the principal mechanisms for delivering sustainability. This will require planning policy to be used with greater emphasis and clarity in order to integrate better the social, economic and environmental elements that are often seen as disparate.

In addition, fiscal policy could be used increasingly as a means of delivering price signals to markets. This is already being done in waste management and to some extent primary aggregates usage, but there are other areas for intervention which at

present appear to be mispriced in terms of their impact on sustainable development. These include car and other road use, the purchase of recycled

Not only should sustainability be the central and driving force of planning policy but, conversely, planning policy should be used with greater emphasis and clarity as one of the principal mechanisms for delivering sustainability

products and taxation allowances to encourage the specification of environmentally effective building materials and services.

Matching costs and benefits

There is an apparent mismatching of the costs and benefits of sustainable development in the built environment. In part, this may be resolved by better communication between occupiers and investors/developers and their advisors. It may also be addressed through improved information and education.

Nevertheless, some current and apparently deeply embedded practices may be obstructing progress towards sustainable development. These include fee structures and reliance on competitive tendering rather than partnership. Being deeply embedded practices, these will need sensitive attention.

Information and skills

Despite significant progress in the property sector in terms of engaging with environmental management and sustainability, attitudes to sustainable development are often clouded by ignorance and inadequate skills. Better access to clear and focused information and the improved provision of education and training is needed to give a clearer picture of what can and cannot be achieved.

We do believe that the ‘vicious circle of blame’ that exists at the moment is not immutable – things can and do change and the skills and resources that are undoubtedly available in the built environment professions can achieve sustainable development objectives. As with all areas of human endeavour, what is needed is leadership, vision, knowledge and clarity.

| ABOUT THE ORGANISATION                                                                                                                                                                                                                                                                                                                                                     | ENQUIRIES                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The RICS Foundation is a research-based charity established by the UK's Royal Institution of Chartered Surveyors to explore the long-term issues driving change and development in land and property markets. Within this, the challenge of sustainable development is a key one to respond to and the Foundation is implementing a programme of research into this issue. | Stephen Brown<br>Director of Research<br>RICS Foundation<br>12 Great George Street<br>London SW1P 3AD<br>UK<br><br>Tel: +44 (0)20 7334 3725<br>E-mail: <a href="mailto:Stephen@rics-foundation.org">Stephen@rics-foundation.org</a><br>Web site: <a href="http://www.rics-foundation.org">www.rics-foundation.org</a> |
| This article is based on research carried out by Upstream for the RICS Foundation. For a full copy of the research report, please contact Stephen Brown by e-mail.                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                       |



# Recycling the future

Leading Producer Responsibility scheme Valpak explains how the UK is working to meet European recycling and recovery targets through a unique market-based Packaging Waste Recovery Note (PRN) scheme and other initiatives.

With the UK producing enough waste to fill the Albert Hall every hour, recycling has never been a more important issue. But it's certainly not a new one. The year 2004 sees the tenth anniversary of the European Union's Packaging and Packaging Waste Directive that was originally introduced to encourage member states to boost recycling through a system of recycling targets.

Although enshrined in EU law, each individual member state is free to meet the targets (and thus comply with the directive) in their own ways. In the UK, a period of industry consultation eventually saw the birth of the Producer Responsibility Obligations (packaging waste) Regulations in 1997, and with them, the introduction of the Packaging Waste Recovery Note (PRN) system.

## A unique system

The PRN system is unique within Europe, and independent studies have shown it to be one of the most cost-effective systems for complying with the EU Directive. Whereas most European countries have opted for a licence-based system, where companies

pay a fee towards a central recycling scheme, in the UK industry preferred to take a more market-based approach. Reprocessors of packaging waste who are accredited by the Environment Agency, issue a Packaging Waste Recovery Note (PRN) for every tonne

*"Although the system for calculating the obligation for UK companies may seem complicated, it offers the most cost-effective form of compliance in Europe"*

Steve Gough, Chief Executive, Valpak Ltd.

of material they recycle. This in turn is bought by UK industry, either independently, or through consultants or compliance schemes, as evidence that they have invested in recycling. The reprocessor uses the revenue from the PRN to increase and develop recycling capacity and material collection.

Steve Gough, Director of Operations of the UK's leading compliance scheme Valpak, explains: "The beauty of the UK's PRN system is that money is channelled directly back to reprocessors, allowing immediate investment in recycling infrastructure. Because the

PRN system is market-based, prices can be negotiated according to the state of the market, which allows flexibility and competition."

The UK regulations apply to any company with a turnover of £2m that handles over 50 tonnes of packaging waste. Companies are obligated to purchase a certain number of PRNs every year, depending on the amount of packaging waste they handle. Each activity throughout the packaging chain, from manufacture to selling, carries a different responsibility. A company's obligation is calculated by working out the share of its responsibility and multiplying it by the UK's recovery and recycling targets.

"Although the system for calculating the obligation for UK companies may seem complicated, it in fact offers the most cost-effective form of compliance in Europe," says Gough. "As targets rise, obligations rise, which means that more PRNs are bought, channelling further funds into recycling. This is used to help grow the system in order to meet future targets."

Rona Brown, from plastics reprocessor Frank Mercer and Sons, agrees. "We believe our company proves

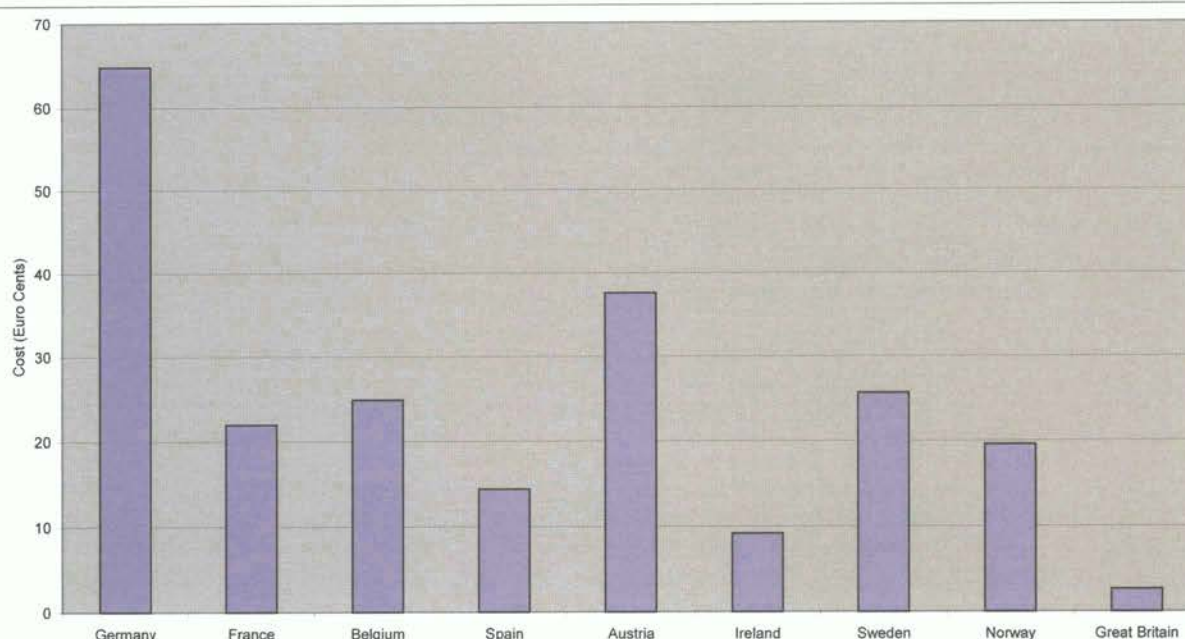


Figure 1. Cost to obligated business of recovering packaging material from a selection of goods (DSD research).



that you can reinvest PRN revenue to increase capacity and build a strong company, if you are committed to the spirit of the legislation," she says.

### The importance of targets

Despite being extremely cost-effective, the UK's system is, however, dependent on prompt and realistic recovery and recycling targets being set by government. It is vital to UK industry that steady targets are set regularly to ensure that investment continues to grow – a year of flat targets without increase means that the market becomes slack, and investment is affected.

Valpak is the UK's largest compliance scheme, with a 60% share of the UK market. It is owned by its members who are UK companies affected by the regulations. On behalf of its members it is strongly engaged in lobbying government on the subject of targets. A recent consultation by the UK's Department of Environment, Food and Rural Affairs into the Packaging Regulations has brought this issue to the fore again.

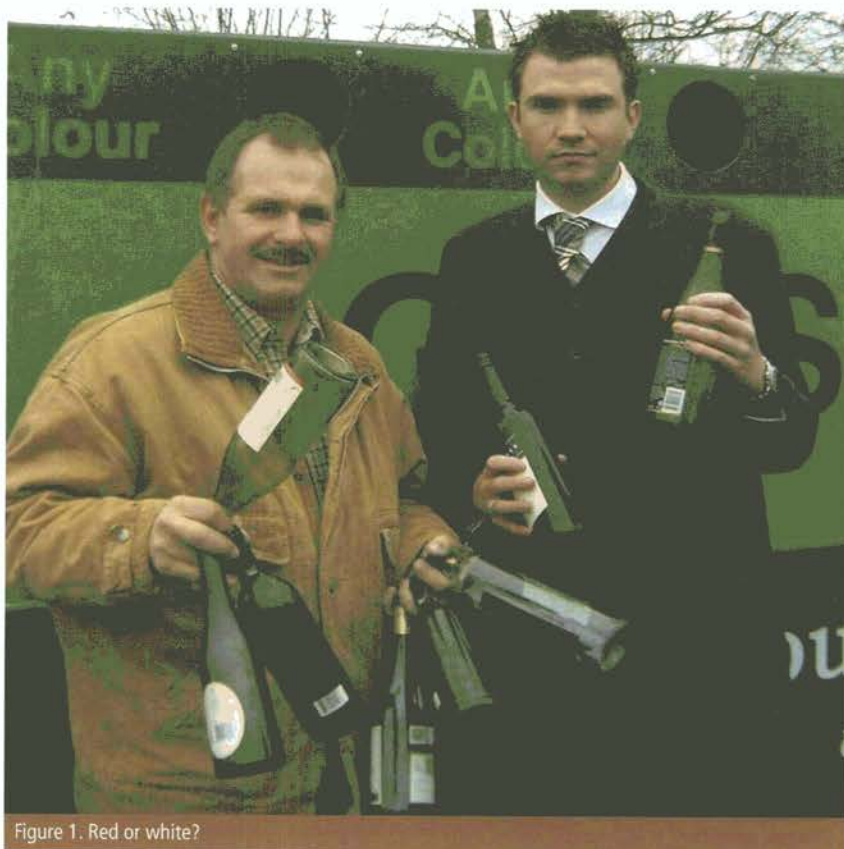


Figure 1. Red or white?

### Case study: aluminium – the most valuable recyclable

Employing 58,000 people in 38 countries, over 3,500 of those in the UK, Alcan Aluminium has an annual turnover in excess of \$13bn.

In 1989 Alcan built its Used Beverage Can (UBC) recycling plant in Warrington. The plant now has the capacity to recycle every aluminium drink can sold in the UK for the foreseeable future. An estimated 90,000 tonnes is available for recycling in the UK market, worth £40 million to collectors, and having a trade value of £68m (2001 figures).

Alcan Aluminium Can Recycling was also formed in 1989 to develop and establish an infrastructure for aluminium can collection in the UK. Used aluminium drink cans are collected from a variety of routes including Cash for Cans schemes, local authority kerbside schemes, can banks and supermarket recycling points. There are 21 AACR Cash for Cans scheme centres throughout the UK, six run by AACR itself and 15 operated by independent companies under the AACR banner. To facilitate the growth of can recycling nationwide the company also has a network of eight Aggregation Centres throughout the country where trade suppliers can deliver their cans. Alcan then pays the delivery costs to the recycling plant at Warrington.

### PRN investment

Alcan has recently invested more than £2million in recycling in the UK, of which over £300,000 was generated from PRN revenue. In another boost for aluminium recycling, and again partially funded through the PRN system, Alcan is a member of, and the biggest contributor to, Alupro, a trade body formed by aluminium producers. Alcan supports the UBC price over and above the old rolled aluminium price. By doing this, money gets back to the suppliers and the industry. It also means that Alcan can ensure that all its suppliers, many of them small business, can be paid within seven days. This scheme in turn, has allowed Alcan to provide equipment and marketing support to its suppliers, which again benefits from being partially funded through PRN revenue.

Therefore, revenue from the PRN system is not only providing support for large multi-nationals such as Alcan Aluminium to invest in new technologies that benefit UK recycling, it also provides much needed support for a range of smaller companies that are indirectly servicing recycling in the UK.

Rick Hindley, Alcan Aluminium Can Recycling's National Manager said: "Undoubtedly without the PRN system, much of the investment and progress that we have made in the recycling market would, at the very least, have been delayed in coming on stream. PRN revenue is invaluable in supporting on-going initiatives, and this guaranteed income has certainly meant that Alcan has been able to continue to invest in its key recycling programmes."

### Future support

Major strides have been made in aluminium drink can recycling in the UK over the last few years. When the first Cash for Cans service started, less than 2% of aluminium drink cans were recycled. Today over 42% of the five billion or more cans sold each year in the UK are recycled, equating to approximately 32,307 tonnes.

To ensure that this figure continues to rise, the company has launched a number of new initiatives, including an interactive website [www.cashfor cans.co.uk](http://www.cashfor cans.co.uk) aimed primarily at schools. The site gives advice on how to start recycling schemes, and takes viewers on an interactive tour of the recycling plant in Warrington.



## A rubbish year

"2003 was probably the worst year for the PRN system that the UK has seen to date," admits Gough. "The UK government failed to increase targets, meaning that the market for PRNs was extremely loose. PRN prices hit an all-time low, which while good for our members in the short-term, means that investment in recycling was also down. This will make things harder for the UK in years to come as targets inevitably increase to meet EU objectives."

Valpak is committed to keeping costs at a level for members to ensure recycling investment continues, while still achieving competitive rates in comparison to other schemes. This is achieved through a variety of procurement methods. PRNs can be bought directly from reprocessors on a spot basis, and also through long-term contracts. A comparatively small quantity are also purchased through an online trading floor.

"One of the unique qualities of the UK's PRN system is that compared with systems in other parts of Europe it is extremely cost-effective. This is essentially because it is a market system, and like any market system it hinges on economics underpinned with strong commercial contracts," explains John May, Manager of steel reprocessor Corus Steel Packaging Recycling.

"The contractual relationship between a compliance scheme and a reprocessor is the fundamental building block to attain higher recycling levels to reach targets. In particular, where you have a well-directed compliance scheme in partnership with a focused reprocessor you have a particularly productive partnership. This is how we at Corus would regard our working relationship with Valpak."

## Recycling in practice

As challenging recycling targets loom on the horizon, the goal for the UK is to increase recycling nationwide. Valpak is involved in a number of initiatives with local authorities, waste management companies and community groups to increase both domestic and commercial recycling levels.

One of the most problematic materials for the UK in years to come is glass, and therefore Valpak is committed to developing collection infrastructure to source this material. One of the compliance scheme's most successful achievements was recycle-more-glass, a pioneering scheme which collected waste glass free of charge from pubs, clubs and restaurants. Valpak founded

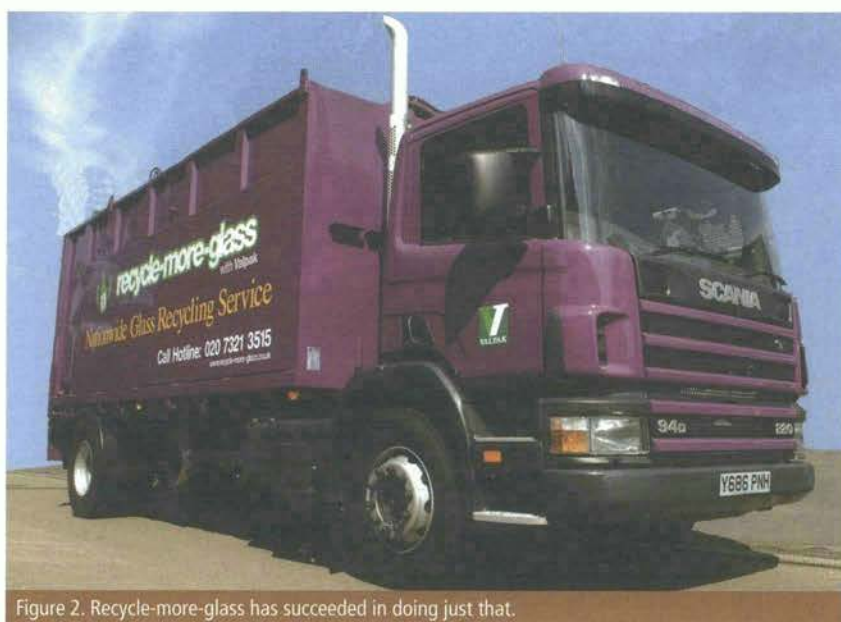


Figure 2. Recycle-more-glass has succeeded in doing just that.

the scheme in order to increase UK glass recycling levels. It identified a previously undeveloped source of waste glass in the licensed trade and leisure industry, and the scheme enjoyed rapid growth. The project collected 60,000 tonnes of glass a year, the equivalent to

As challenging recycling targets loom on the horizon, the goal for the UK is to increase recycling nationwide

nearly 200 million bottles and jars. In spring 2003, Valpak sold the business to the UK's largest commercial and domestic glass collector and processor, Berryman.

## Community projects

Other projects in the community include work with Local Authorities to source glass. Valpak has pioneered an agreement which channels glass collected by some local councils into replacements for aggregates. This

method of recycling is popular with the local authorities because glass can then be bought back at a lower cost for use in local roadbuilding schemes, giving a closed-loop effect.

Valpak also runs [www.recycle-more.co.uk](http://www.recycle-more.co.uk), a website which offers information and advice to consumers on how they can recycle their waste.

The site features a unique Recycling Bank Locator, where visitors can enter their postcode and locate their nearest recycling points. Information and site locations are updated by Local Authorities who find the website a useful tool to promote the recycling message to visitors. The site has had over 750,000 hits in 2003, and is used by some of the UK's major retailers as a way of educating customers about recycling.

Initiatives like recycle-more are helping to spread the recycling message to the public – an important element if the UK is to meet future European targets.

## ABOUT THE COMPANY

Valpak is the UK's largest compliance scheme for the packaging waste regulations, serving over 5,000 companies and with over 3,000 members. It works with and represents a wide range of UK businesses to achieve the UK's recovery and recycling targets. Valpak acts as a source of information and expertise for its members and as a channel of communication and best practice for the recovery industry.

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# PACKAGING RECYCLING VIA THE GREEN DOT — THE EUROPEAN WAY OF SAFEGUARDING NATURAL RESOURCES

13 years experience as a viable financing model: The Green Dot is the most widely used trade mark in the world and is inseparably linked with packaging recycling. Studies corroborate clear environmental benefits.

In the year 2000, effective packaging consumption in Germany was about 18 percent lower than a hypothetical waste management concept without packaging recycling. This is the result of the study "Duales System Deutschland – An Assessment of Sustainability and Prospects for the Future" by Prognos AG, Basle.

The central statement of the Prognos study is that the Dual System has made a positive contribution to sustainable development in Germany with its focus on the conservation of resources and protection of the environment.

The recycling of packaging causes far lower emissions of greenhouse gases and pollutants than waste disposal by means of incineration or landfilling. Thanks to the efforts of the Dual System, the volume of residual packaging waste to be disposed of each year (by way of landfills or incineration) was reduced by approximately 65 percent between 1991 and 1999/2000

## RECYCLING SAVES PRIMARY ENERGY AND PREVENTS CO<sub>2</sub> EMISSIONS

To substantiate these findings and in order to make the benefits of the daily separation of waste transparent to the consumers, the Dual System introduced the environmental performance balance. It clearly quantifies the various ecological benefits of recycling Green Dot packaging in each material class.

In 2002 each German consumer collected on average 76.7 kilogrammes of used packaging, amounting to a total of 6.32 Mio tonnes of recyclables. As a result 67.5 billion megajoules of primary energy were saved through recycling as opposed to production from virgin materials. In fact, the amount of energy saved by recycling three yellow Dual System collection bags of used lightweight packaging (plastics, aluminium, tinplate and composites) is equivalent to the daily consumption of electricity of an average 3-person-household (around 9.6 kilowatt hours).

By the same token, a concrete figure can be assigned to the aspect of climate protection. Here, packaging recycling helped to prevent the emission of 1.5 million tonnes of climate-endangering greenhouse gases such as carbon dioxide.

( see [www.green-dot.com/journalists/service/research/press\\_folder/](http://www.green-dot.com/journalists/service/research/press_folder/) "Environmental Success Balance 2002")

The environmental success balance will continue to serve as a monitoring tool. It has been developed on the basis of the international standard for life-cycle analysis (LCA) and provides, alongside transparency in packaging recycling, a decision-making aid for further development.

## OPEN-MINDEDNESS TO DIFFERENT RECOVERY ROUTES

Non-profit Duales System Deutschland AG with its trademark, the Green Dot, was set up by industry in 1990. In accordance with the provisions set forth in the German Packaging Ordinance the Dual System exempted retailers and manufacturers from their individual obligation to take back used sales packaging by setting up a consumer-orient-

ed collection system. The main objective was to increase recycling of sales packaging waste from private households and thereby to minimise the amount of waste going to landfills while avoiding inflexible and costly tax solutions.

The Dual System's weight- and material-based fee structure reflects the real waste management costs incurred by the individual material. It thus gives industry an incentive to develop and produce recycling-friendly packaging, to reduce the use of packaging and hence ecological costs. Savings in waste management costs are directly passed on to the licensees by way of fee reductions.

The goal of the Company is to constantly improve eco-efficiency coupled with economically justifiable prices. Promoting innovative sorting and recycling techniques has already helped to substantially reduce sorting costs - and what is more, basically homogeneous, high-quality and above all marketable starting materials are now available for industrial processing. By contrast, the corporate „Innovation programme 2007“ aims at testing suitable pilot projects for high-grade energy recovery. The project will be guided by the requirements of cost optimisation, the guarantee of ecological standards, and consumer acceptance.

## PACK THE FUTURE – TRAINEES INVESTIGATE „SUSTAINABILITY INITIATIVES“ IN THEIR COMPANIES

Due to continuous communications efforts, the public's willingness to separate and sort waste has stabilised at a high level since the mid-nineties. More than 90 percent of German consumers participate in separate collection of packaging waste.

In addition to raising ecological awareness among German consumers, the target groups the Dual System directs most of its attention to are politicians, educational institutions and the business community.

To this end the Dual System started to actively „pack the future“ in the scope of a jointly organised „idea contest for German trainees“.

„Pack the future“ was designed and



In modern sorting facilities, lightweight packaging is automatically separated into homogeneous parts, resulting in high-quality material for recycling.





staged in cooperation with the Bundesinstitut für Berufsbildung (BIBB), the Institut für Umweltschutz in der Berufsbildung e.V. (IUB Hannover) and the Deutsche Gesellschaft für Kunststoff-Recycling mbH (DKR).

Patronised by the Federal Minister of Economics and Labour, Wolfgang Clement, the contest aims at encouraging German trainees to investigate the resource-conserving initiatives taken up in their respective firms. They will subsequently devise their own ideas on the topic of sustainability in their firms.

A jury consisting of environmental experts from politics, industry, educational institutions and the media will judge the documentation of resource-conserving practical examples. The trainees submitting the ten best entries will be invited to a presentation in Berlin in June 2004.

(see [www.packthefuture.de](http://www.packthefuture.de))



Hans-Peter Repnik, CEO of Duales System Deutschland AG at the start-event of the „Ideas contest for trainees: Pack the future“, September 23, 2003 in Cologne

## Europe goes Green Dot

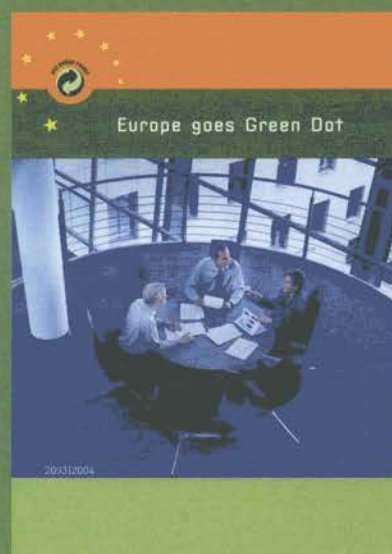
So far, 20 European countries are using the Green Dot, including nine of the candidate states shortlisted for EU-accession in the near future: Cyprus, the Czech Republic, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia and also Turkey. To improve their chances of complying with EU-Packaging Directive 94/62/EC, these accession countries have opted for the Green Dot as an efficient financing model for nationwide packaging recycling. Further countries will follow in 2004. This is clear proof of the internationally recognised efficiency of non-profit self help-organisations set up by industry.

The Green Dot is the most widely used trade mark in the world.

Throughout Europe, more than 98,000 licensees use the Green Dot financing symbol and well over 210 million inhabitants in Europe may already take advantage of the collection arrangements provided by the 20 Green Dot systems, and dispose of their packaging in sorted containers. It is important to note that all 20 national systems operate independently. United under the Brussels-based umbrella organisation Packaging Recovery Organisation Europe s.p.r.l (PRO EUROPE) all systems – from Greece right through to Sweden – are guided by the principle „Uniformity in Diversity“. They pledge uniformity in that they have all developed carefully adapted recovery and recycling systems that consider industry's interest in free trade, use a common financing logo and have formed balanced partnerships with the entities in charge of packaging waste – local authorities or waste management companies. By contrast, the national systems showcase diversity in the logistical concepts and technical approaches designed to make packaging recycling a long lasting success. The diversity of methods and systems are a reflection of the varying socio-economic structures and consumer traditions prevalent in the individual countries.

The reference work „EUROPE GOES GREEN DOT 2003/2004“ features vivid profiles of all the European Green Dot systems currently up and running in Europe (status: October 2003), while showcasing their resemblances and differences. It expounds the statutory requirements to be fulfilled in each particular country, explains how the arrangements for packaging recovery work and how the systems cooperate with the waste management partners.

It further illustrates how the systems are accepted by the general public and last, but not least how the systems encourage packaging optimisation. Copies may be ordered directly at +49-2203-937-272



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# Towards better buildings

Robert Webb, XCO2 Group, UK

Buildings that are more sustainable can and should also be better and more beautiful in a whole variety of dimensions. This article provides some pointers to how this can be achieved and gives illustrative examples of work done by XCO2 that integrates environmental sustainability with occupant comfort and delight.

You might think that the building project that you are involved with is unimportant in the grand scheme of things – but not so. Did you know that half of all developed country energy use is in buildings? It is enormously important therefore that all new buildings are constructed to the highest environmental standards. The good news is that it is not that difficult, it does not need to be expensive, and it will lead to better buildings all round.

Buildings are an essential element of the transition to a more sustainable world. They are where we spend most of our lives, they are an engine of the economy, and they are ultimately where we use most of our energy.

Unlocking the sustainability challenge means changing how we design and manage our buildings and settlements, making them carbon-positive and low-toxicity; making them water and waste efficient; and making them better places in which to spend time – in other words, making them fit for their purpose, fit for people, and fit for the planet.

But it also means making beautiful buildings and incorporating renewable energy systems. Environmental

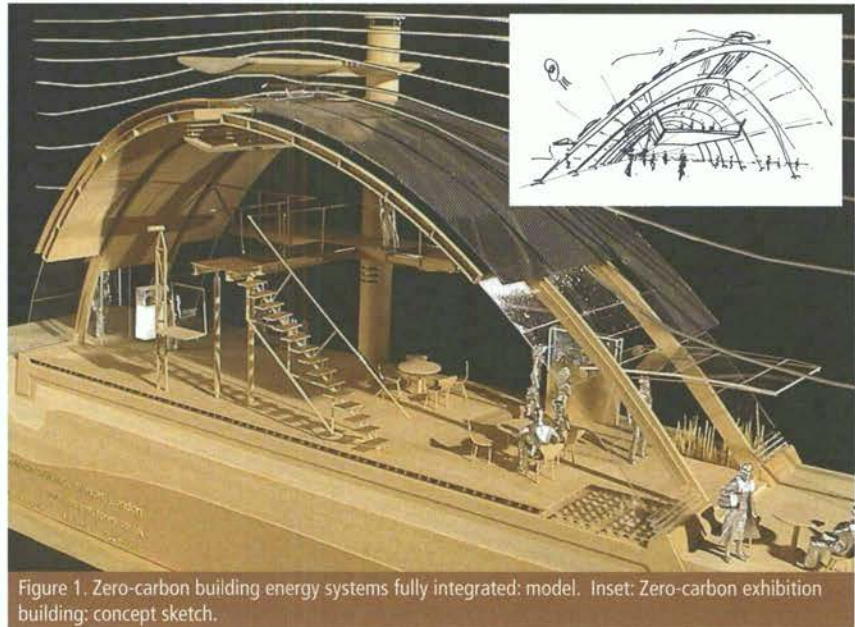


Figure 1. Zero-carbon building energy systems fully integrated: model. Inset: Zero-carbon exhibition building: concept sketch.

sustainability is not only no limit to good architecture, it can and should form the inspiration for great architecture. There are still too few examples of this, even though it is not rocket science, it need not be expensive and there is no downside. It is perfectly possible to design new buildings that reduce energy use and CO<sub>2</sub> emissions by 60–90% over the

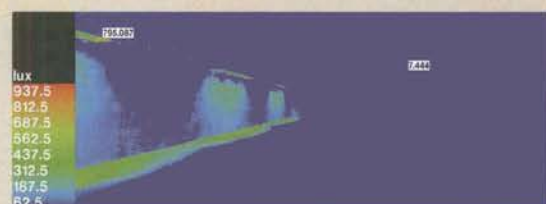
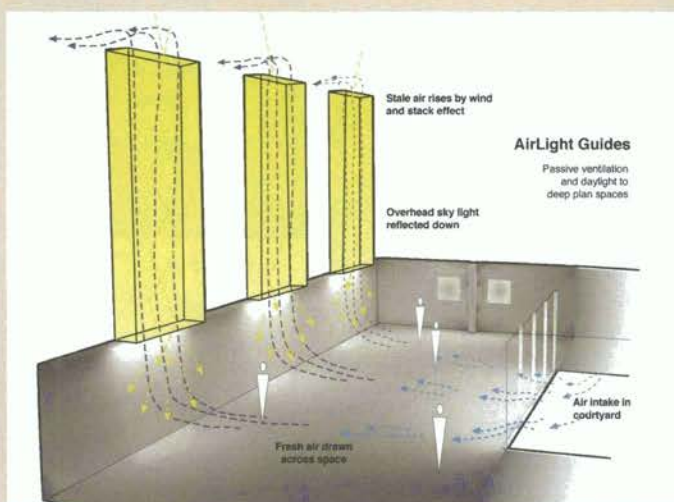
current average levels, at little or no additional construction cost – and with considerable lifetime cost savings.

## Comfortable buildings

The place to start is to realise how much happier people are in high quality buildings, and how they perform better. Numerous studies in offices reveal remarkable increases in

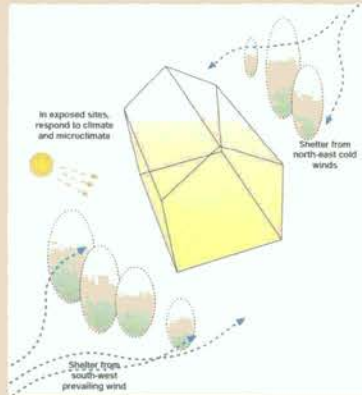
### Case Study 1: AirLight Guides – Comfort and quality in the work environment

The AirLight Guides designed for a central London office refurbishment improve comfort conditions with no active fans or cooling – and with zero energy use. Left to Right: Airflow diagram, computer modelling, final result.





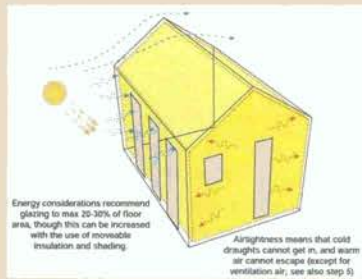
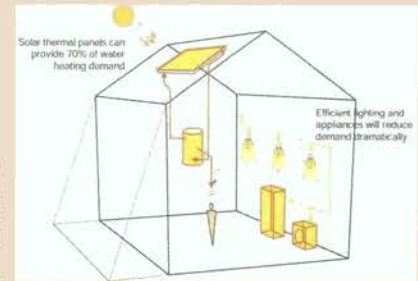
## Design Guidelines: Efficient Buildings (temperate climates)

**1. Site, orientation and built form**

The most important thing for any design is probably getting the views and daylight to work together with the energy strategy. Flats and terraces are more efficient than houses.. as the surface area is less.

**3. Energy system & appliances**

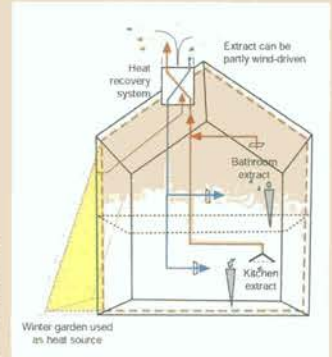
To reduce other energy use: efficient lighting and appliances (CFLs or metal halide and A-rated appliances). Consider solar thermal for hot water – usually can provide 60-70%.

**2. Minimise heat loss and maximise airtightness**

Most important of all to reduce heating energy use are: High levels of insulation, the correct window/wall balance and window orientation, and airtightness (no cold draughts!).

**4. Heat recovery ventilation**

Many people in the UK assume that heat recovery ventilation (MVHR) means a stuffy house. Not so! Advantages include reduced heat demand and better air quality – leading to lower incidence of asthma and allergies.



Drawings: ©XCO2 2002

work rate and productivity, while studies in schools and hospitals show increased learning rate and recovery rate in high quality buildings – meaning buildings provided with good daylight and good ventilation, and with generous and exciting spaces.

Seen as a simple financial model, this quality improvement has interesting consequences. The salary costs of an office building over its life are at least 100 times higher than the cost of the

building itself, meaning that on any sensible reckoning a small additional cost to the building will bring a huge financial return in more productive staff.

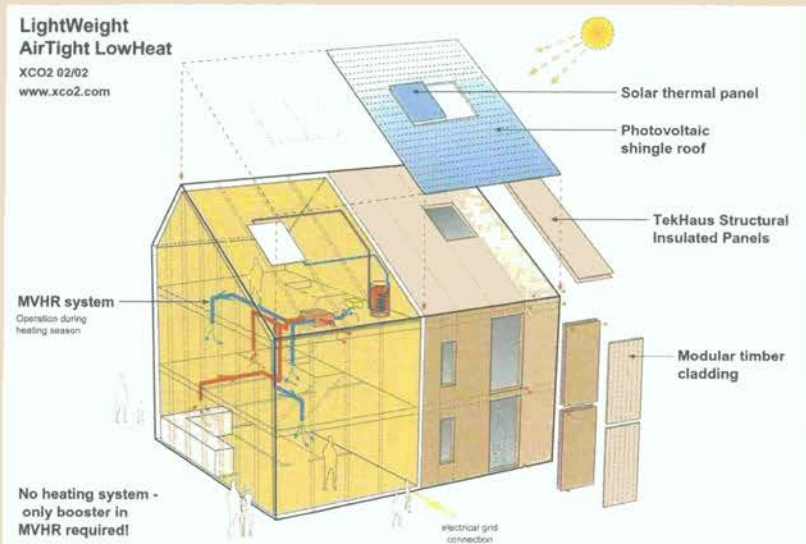
### Case study – AirLight Guides

A small example of making better buildings that are also low-energy is our installation of AirLight Guides in a London office building. The base condition is the ground floor, which

butts up to another building on one side and opens to a narrow courtyard on the other – and the key problem is providing effective daylight and ventilation. The AirLight Guides work as ventilation extract chimneys, using wind pressure and stack effect to draw air from the courtyard, across the space and up out of the top of the Guides. They are lined with a specialist material that is highly reflective, in order to bring daylight down from roof level.

### Case Study 2: Efficient Building System. Cost-effective low-energy performance

This is a house-building kit for cold countries which achieves excellent efficiency at standard costs. The modular construction kit is based on Structural Insulated Panel technology. Our approach reduces the heating energy by 90% over a typical existing European house, cutting the heating bills to around £50 per year. In this case to go further the cheapest renewable energy solution to make the house zero-carbon adds only 10% to the cost of the house.

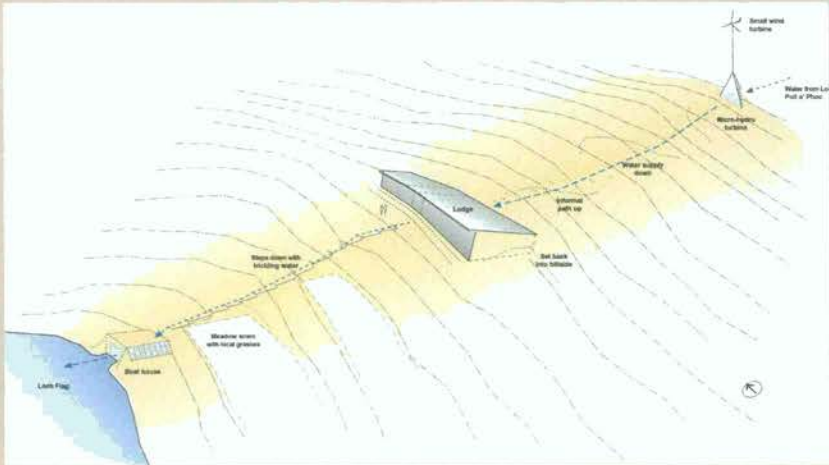


Design: ©XCO2 2002 Photos: Kingspan Tek.



Case Study 3: Fiag House, Scotland. The design is not compromised by energy considerations.

This large house has extensive glazing to take in the views, yet is completely powered from renewable energy thanks to a micro-hydro plant and wind turbine. Moveable shading and insulation allow energy efficiency despite large glazing areas.



Design: ©Yellow 2002

Our predictive computer modelling suggested they would produce a large pool of light, around 450 lux, at the bottom of each Guide; and this is in fact what we get. The Guides are a great success, and in the summer the space was reported to be the most popular in the office: “What I hadn’t expected was just how much difference they make to the space, making it feel properly day lit and well ventilated,” said one occupant.

Carbon eaters

Carbon dioxide emissions and displacement is the most essential

measure of sustainability in any new building, and it is perfectly possible to make buildings ‘carbon-eaters’ – or clean energy power stations.

The first and most important thing to acknowledge is that the largest impact that a building makes is by its ‘in-use’ energy – used to heat, light and power it. Many people start by thinking about materials, because that is the stuff that is right in front of us – however it is the ‘invisibles’ that cause more impact, through the extraction and use of fossil fuels (This applies to eco-toxicity as well as climate change, as fossil fuel extraction

and use causes 50% of all eco-toxic pollution, according to UNEP).

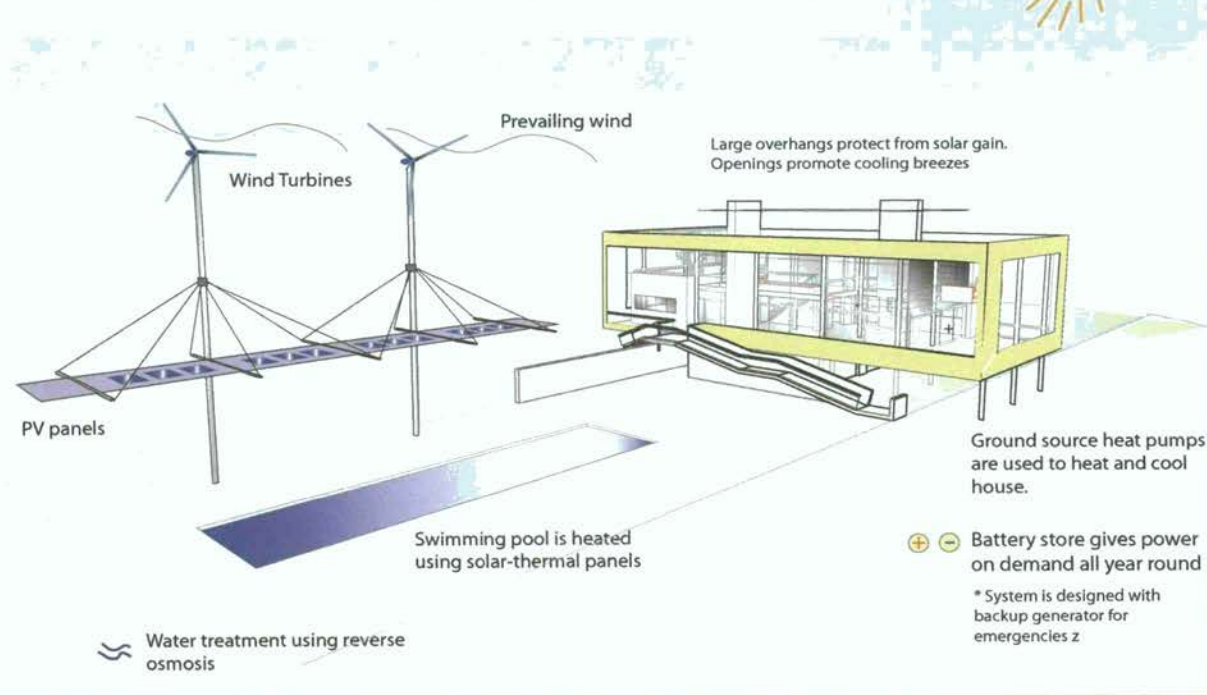
So, the first thing is to design for high levels of energy efficiency, and then look to integrate renewable energy technologies where possible.

Beautiful buildings

Many ‘green’ buildings have approached an aesthetic of ‘rustic’ and ‘natural’, with small windows to minimise heat loss and heat gain. Our design for a zero-carbon house in the Scottish Highlands is a striking and modern response to the site, a steep west-facing slope with an

Case Study 4: Autonomous House, Crete. Elegant renewable energy provides comfort.

This house is remote from the grid and its own supply provides guaranteed heat and electricity year-round.



Drawing ©XCO2 2002 design ©Charles Xenakis



## Case Study 5: Building-integrated wind energy. A Quiet Revolution is beginning.



Renewables at a Primary School in Kings Cross, London. As well as lighting play structures in winter evenings, the installation forms part of teaching activities.



New silent and elegant vertical-axis wind turbine (VAWT), developed by XCO2, winner of DTI SMART award.



VAWT provides power for streetlighting and signage on a riverfront location, feeding surplus into the grid.

amazing view over loch and hills.

The house and associated vehicles are completely powered by a micro-hydro turbine that makes use of rainwater filling an upper loch, and a small wind turbine. Moveable shading and insulation allow large windows for the view, without compromising energy performance or comfort.

### Beautiful energy

Our civilisation is in a transition from the oil economy, and buildings must play an important part in this. There is ample renewable energy to meet all of our needs, but growth in renewables is still far too slow. Meanwhile renewable energy on a building is worth far more in monetary terms than that generated remotely, making it more competitive. It is critical that renewable energy opportunities on and in buildings are

exploited to the full – every last kilowatt-hour of zero-carbon energy counts.

To make this happen it is also important that renewable energy on buildings is beautiful and non-intrusive. XCO2 has been working with building-integrated photovoltaics for some time. This is relatively easily integrated to replace cladding or roofing. The other big opportunity is wind – one of the most cost-competitive sources of renewable energy.

Many designers are unhappy about integrating conventional propeller-type turbines on buildings, and some of the (few) products available at appropriate scale have suffered from noise problems. In response to these issues we are developing a vertical-axis wind turbine with spiral form, which is quiet and extremely elegant, and ideal for

building-integration.

These turbines can produce a large proportion of the electrical energy required for a range of uses, from street lighting to domestic buildings and tower blocks. We have recently received a UK Government 'SMART' R+D award to optimise the aerodynamics and we are working with a number of high-profile architects on building-integrated projects.

This is just one of a huge number of innovations needed to drive the next industrial revolution – innovations which can feed the human spirit as well as bringing climate change under control and true sustainability within our grasp.

#### ABOUT THE ORGANISATION

XCO2 [ex-see-oh-too] 1. adj: descriptive of technologies, systems or strategies that aid carbon dioxide reduction through energy efficiency and renewable energy. 2. n.: radical innovation hub.

#### ABOUT THE AUTHOR

Robert Webb is CEO of the XCO2 Group. XCO2 are sustainable energy designers and engineers providing consultancy and specialist modelling services for built environment and renewable energy projects.

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# NAVIGATING A BETTER FUTURE

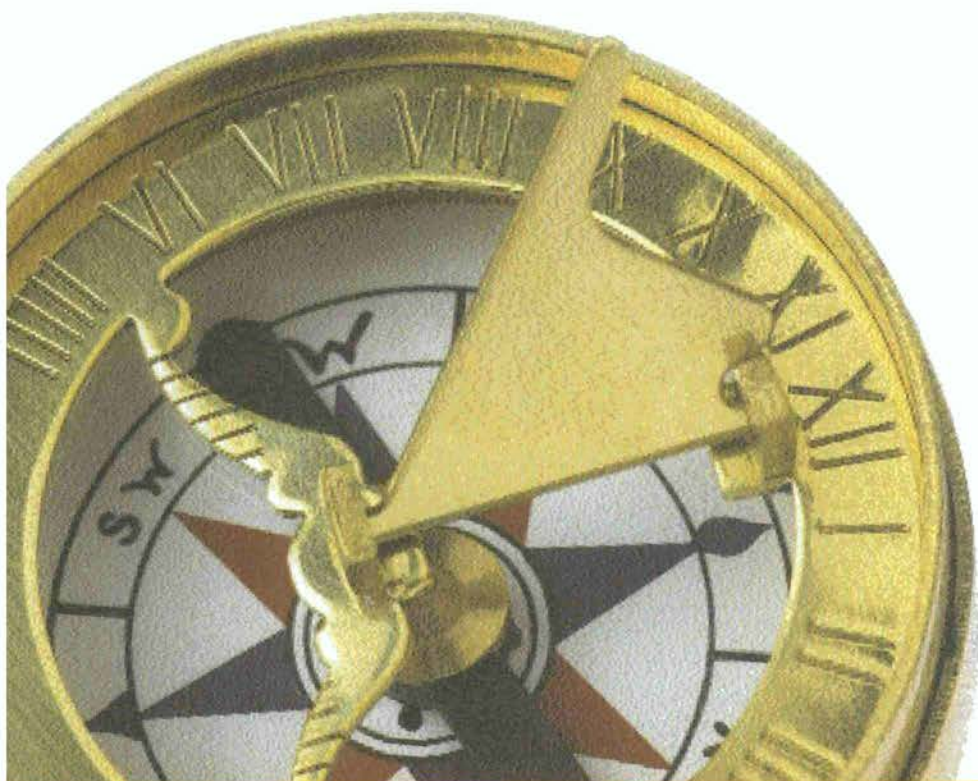
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# Energy and Transport



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The roads to destruction  
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The UK's offshore oil industry explains how it is integrating sustainability into its upstream practices. Further downstream, the benefits of decentralised energy are advocated. The development of small renewable electricity generation technologies mean that increasing decentralisation of generation is possible: the massive investment needed in the conventional centralised system means it is also desirable. WWF says the development of renewable energy needs support, which it is offering with a Gold Standard campaign.

Transport writers examine the potential for cleaner fossil fuels in vehicles. Natural gas is developing to be the next generation in motor fuel, whilst in the developing world environmental damage is being reduced by improvements in the quality of gasoline petrol. In Europe, a transport organisation criticises the European Commission for giving the go-ahead to transport infrastructure projects in accession countries, thus overriding much environmental legislation.





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# The Gold Standard

**Mark Kenber**, WWF Climate Change Programme, UK

Projects should soon be registered under the Kyoto Protocol's Clean Development Mechanism. Although CDM is a big step in the right direction, the rules that govern it have attracted criticism. WWF and other groups have developed the Gold Standard that takes CDM rules further towards sustainable development while reducing the risk for investors.

Investment is, at last, beginning to flow into greenhouse gas (GHG) emission reduction projects. After delays and confusion, it is expected that the first Clean Development Mechanism (CDM) projects will be approved soon. Joint Implementation (JI) projects are coming on-stream. And a slew of private sector and development banks are setting up carbon funds to invest in such projects. By October 2003, more than 30 projects had been proposed for CDM registration and a number of voluntary schemes were already under way.

## Kyoto is the catalyst

Much of this investment is being driven by the Kyoto Protocol, the 1997 international climate agreement that sets GHG reduction targets, for the years 2008–12, for industrialised nations. However, regardless of the progress of the Protocol – which is still awaiting ratification by Russia before it can enter into force – regional, national and even sub-national schemes are planned or proposed that will incorporate similar project-based reduction schemes.

Kyoto allows for investors in CDM projects in the developing world and in JI projects in the industrialised world to earn carbon credits to the extent that the project reduces or avoids GHG emissions. Companies and governments can use these credits towards their reduction targets.

The CDM, in particular, promises to generate a flow of investment into developing countries, helping to set them on a path of sustainable, low-carbon development. Both JI and the CDM are likely to provide a relatively low-cost supply of credits, giving the industrialised world time to develop the technology solutions to generate cost-effective reductions at home.

But investment in overseas projects is already proving controversial – and could easily become more so. The trading of emission allowances is an emotive issue for activist groups, indigenous communities and, potentially, for shareholders. There is a real danger



Figure 1. The Gold Standard favours renewable energies that respect the rights of local people and enhance biodiversity.

that projects could be developed – legitimately within the Kyoto rules – that offer little benefit to either the climate or to local communities.

That is why international conservation group WWF and a number of like-minded organisations, following extensive consultation, have developed a Gold Standard to help guide project developers and investors.

## The Gold Standard

Green energy projects in developing countries are taking off, attracting investors who are interested in renewable energy and those wanting to benefit from new emission trading rules. To benefit from these rules, projects must comply with the rules of the Clean Development Mechanism (CDM) under the Kyoto Protocol.

The CDM Gold Standard is set to promote a sizeable market in quality certified emissions reductions (and units) from CDM projects – to improve on the normal standard of CDM projects.

The Gold Standard is a project methodology, fully consistent with the official CDM Project Design Document. It provides assurance that CDM projects will deliver what they are supposed to deliver – real emissions reductions and a clear contribution towards sustainable development. It provides an independently audited best practice benchmark for emission

reduction projects, and will ensure that emissions credits are sourced from credible, environmentally-friendly activities.

As such, these credits will enjoy a lower risk profile, command a price premium, and significantly reduce the reputational exposures of both developer and buyer. At the same time, the Gold Standard will reassure host countries that projects truly contribute to their sustainable development.

The new Standard was launched at the Conference of the Parties to the UN Climate Convention (COP 9) in Milan, Italy, in December 2003. A first set of potential Gold Standard projects was presented at that event.

## Project controversy

The Kyoto Protocol's emissions trading elements initially met with hostility from environmentalists. The latter were – and many still are – concerned that trading would allow developed

The Gold Standard is dedicated to the memory of our dear friend and colleague Steve Bernow (1942–2003), whose intellect, ideals and humanity were fundamental in developing the Gold Standard as part of the wider struggle for a cleaner and fairer world, free from the threat of climate change.



economies to avoid painful domestic reductions in favour of buying cheap credits from abroad, particularly from developing countries.

Many mainstream environmental NGOs have since expressed support for emissions trading, on the condition that it is based on rigorous rules that protect the environmental integrity of emission reduction targets.

There is, inevitably, a tension in the design of trading schemes between their environmental effectiveness and the flexibility they offer businesses to exploit the cheapest possible reductions.

This is particularly true of the rules underpinning the Kyoto Protocol, upon which many regional, national and voluntary schemes are likely to be based. Most of the Kyoto rulebook was agreed in Marrakech in 2001. That meeting established a CDM Executive Board, charged with refining the rules governing the CDM, and incorporating them into a project design document (PDD), which developers must follow in preparing CDM projects.

But these Marrakech Accords remain disputed, both over how they are to be interpreted, and whether or not national governments should impose tighter criteria on companies than the accords provide for.

There are five main areas of disagreement:

- **Defining acceptable projects:** What types of emission reduction projects are acceptable as sources of credits? For example, are large-scale hydro power stations sustainable or will they damage the livelihoods of local communities? Are large-scale monoculture forestry projects in the interest of the environment, natural diversity and the local economy?
- **The 'additionality' question:** Are credits being awarded for projects that would have gone ahead anyway, thereby allowing global emissions to rise? They must show that emissions are reduced below a hypothetical baseline, which represents the emissions that would have occurred had the project not taken place.
- **Baseline assumptions:** Are the assumptions made about a project conservative? Despite being clearly mentioned in the Marrakech Accords, there is no requirement in the CDM rulebook that methodologies and technical factors be conservative; and projects could attempt to claim credits for more reductions than actually transpire.

### The principles underlying the Gold Standard

The Gold Standard was developed with reference to a set of basic principles. The intention was that it should:

- Be able to be supported by a wide range of stakeholders, in particular environmental groups and others who believe in the overriding importance of maintaining environmental integrity;
- Strike a balance between environmental rigour and practicality, in terms of their application by project developers and verification agencies;
- Avoid overly adding to transaction costs or bureaucratic procedures;
- Be directly compatible with the CDM and JI project cycles;
- Set out simple procedures, easily handled by CDM project operators, including developers, verifiers and local NGOs;
- Be a global standard, readily applicable in a variety of local and national contexts and across different sectors.

- **Extent of stakeholder consultation:** The CDM requires that the project design document be posted on the internet. Does a project proponent expect remote local communities to answer questions on the internet- or is there a fair process that guarantees fair hearing of everyone?
- **Sustainable development requirements:** Is the principle that CDM projects contribute to sustainable development upheld? There are concerns that this is little more than a formality and that the rules offer little guarantee that adverse impacts will be avoided.

Those projects that qualify for the Gold Standard are likely to offer:

- Reduced risk of delays or disruption;
- Enhanced credit delivery;
- Reduced reputation risk for the credit buyer; and
- A potential price premium and reduced project costs.

The Gold Standard builds upon the guidance given by the UNFCCC Executive Board in its Project Design Document Version 1. As such, it mirrors the CDM project design process, helping to keep additional transaction costs low. Indeed, it was developed in line with a set of general principles that balance environmental integrity with simplicity and wide applicability (see above box). It sets out a code of best practice on many issues in the PDD, and incorporates a small number of extra screens, to ensure real contributions to sustainable development and long-term climate protection.

The main components of the Gold Standard are:

- A project type screen specifying acceptable technologies (see 'Project types' box);
- A screen for additionality and baselines to ensure that projects would not occur in the absence of the CDM (or the carbon credit stream for non-CDM projects), and that overall emissions will be lower than the 'business-as-usual' case in the absence of the project; and
- Sustainable development standards to evaluate projects against specific environmental, social and economic/technological criteria, ensuring they contribute towards sustainable development and meet the needs of local stakeholders.

### The Gold Standard is set up to be a developer's wish list more than an environmentalist's

The risk, then, is that projects that meet the letter of the Marrakech Accords may not meet the spirit of the Kyoto Protocol that requires that they lead to real, sustainable emission reductions. There are compelling environmental and social reasons why project criteria should be tighter than is currently the case. A flood of non-additional credits will undermine climate protection, and divert investment away from sustainable energy projects. The social fabric of indigenous communities could be damaged, and a lack of adequate consultation could generate a backlash against a wider range of development and climate-related investment.

### The Gold Standard can help

There is a compelling business case for investors and companies to favour high quality, environmentally sound projects with clear sustainable development advantages.



Project developers wishing to have projects validated and verified under the Gold Standard should follow the same procedures as with any other CDM or JI projects. However, they should instruct their Designated Operational Entity – a DOE is a body that validates and verifies project performance under the CDM – to base their work on the Gold Standard Project Design Document (GS-PDD) and technical appendices, instead of the basic CDM PDD. The aspects that need to be validated and verified respectively are clearly indicated in the GS-PDD.

Certification by the DOE to say that the Gold Standard has been met will be sufficient to demonstrate compliance. A sample of projects will be independently audited by the Gold Standard steering committee to ensure that validation and verification are being consistently carried out to the highest standards and that the Gold Standard's integrity is being maintained. Manuals offering guidance to project developers and DOEs will be published in early 2004.

## Benefits to developers

The Gold Standard is set up to be a developer's wish list more than an environmentalist's. An independent Standards Advisory Board – comprising some of the leading experts in climate policy and emissions reduction projects – has been responsible for finalising the standards, and will continue to refine them. Not only has it been designed to mirror the Project Design Document required by the CDM Executive Board, but it also confers clear benefits both on developers and investors, as well as giving confidence to host countries and the public.

By meeting the Gold Standard screens, projects developers will be able to implement projects that are lower risk, and potentially more lucrative.

Above all, the Gold Standard will ensure that projects are good for the climate and sustainable development. The benefits are:

- **Reduced risk of delay or disruption:** The Gold Standard significantly enhances the built-in CDM public participation requirements, making these more comprehensive and able to take local concerns and interests into account and reduce the threat of project interruption. Adherence to the Gold Standard can reassure local environmental and development groups that certified projects have sufficiently addressed environmental and social concerns;

## Project types

The Gold Standard is restricted to the following types of project:

### Renewable energy

- Photovoltaic (solar) power generation
- Solar thermal
- Ecologically sound biomass:
- Energy crops (Forest Stewardship Council or FSC certified)
- Forestry (FSC certified)
- Agro-processing residues (e.g., sugar cane, mustard crop residues, rice, coffee husks)
- Wind
- Geothermal
- Small, low-impact hydro
- Ecologically sound biogas.

### End-use energy efficiency in the following sectors

- Industrial
- Public
- Commercial
- Residential
- Agricultural
- Transport.

- **Enhanced credit delivery:** Gold Standard projects are also likely to offer lower credit delivery risk than uncertified projects. The Gold Standard emphasises conservative baseline assumptions, thus dramatically reducing the chance that the project will fail to deliver the expected number of emission reductions;

- **Reduced reputation risk:** Substandard projects are likely to draw criticism from NGOs and governmental bodies scrutinising the companies claiming for emissions credits. Those companies that have publicly embraced corporate social responsibility must be keen to ensure their actions match their words: sourcing non-additional credits from controversial projects is likely to generate outrage from NGOs, and significant attendant negative publicity;

- **Lower insurance costs:** The Gold Standard process can add a further risk management process to the project development cycle. As such, some insurers say that Gold Standard projects will carry a lower risk profile than non-certified projects; and

- **A price premium:** The above benefits mean higher quality credits, with clear sustainability benefits, from more reliable projects. Such projects are likely to command higher prices than non-certified project credits.

## Conclusion

WWF, and those NGOs, governments and private sector organisations with which it has been working, believe that tradable credits from emission reduction projects, if properly constructed, provide business with the flexibility to protect the climate at least cost, while they develop the means to reduce their own domestic emissions. But if the environmental and social integrity of these projects is undermined, the credibility of emissions trading will also be undermined. We believe that the Gold Standard will help to underpin project-based emissions trading and guarantee its environmental credibility.

The Gold Standard promises to protect the climate, protect indigenous populations, and protect the value of emissions reduction projects and the credits they generate – without doubt, a compelling business case.

## ABOUT THE ORGANISATION

WWF is one of the world's largest and most experienced independent conservation organisations, with almost five million supporters and a global network active in more than 90 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

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For further information, see the web site:  
[www.cdmgoldstandard.org](http://www.cdmgoldstandard.org)



# The need to free decentralised energy

**Tom Casten & Michael Brown**, The World Alliance for Decentralised Energy (WADE), Edinburgh, Scotland

In the wake of recent power blackouts there is a choice: either spend a fortune boosting electricity transmission grids, or remove the barriers to decentralised energy. Local power generation cuts dependence on a centralised transmission grid and reduces congestion on the existing system.

On 14 August, around 2pm, a 31-year-old, 650 megawatt Ohio power station failed. Transmission controllers struggled to route power from remote plants, overloading transmission lines. At 4.06, a 1,200 megawatt transmission line melted, starting a failure cascade. Lacking local generation, system operators could not maintain voltage and five nuclear plants tripped, forcing power to flow from more remote plants and overloaded regional lines. By 4.16pm, the northeastern USA and Ontario, Canada lost power.

Only weeks later, almost the whole of Italy endured the worst European blackout for over 50 years. This was caused by a failure of one of the transmission lines that connect Italy with its neighbours to the north. In the meantime, Hurricane Isabel devastated part of the eastern USA, including the transmission and distribution networks in many areas. Again, the lights went out.

What is the connection between these events, and the many that have preceded them through recent years? The common feature is that supply has been interrupted not through a lack of generation capacity but through the inherent vulnerability of the transmission system that is required to connect remote central power plants with faraway consumers. Increasingly, the need to transport electricity, over hundreds or thousands of miles, is a challenging task. Rather like walking a tightrope, security lies at both ends – but in between the smallest deviation will cause calamity.

WADE believes that greater reliance on decentralised energy (DE), defined as high efficiency cogeneration and on-site renewable/recycled energy, will reduce the growing vulnerability to supply curtailment because it does not depend on transmission and because it reduces congestion on the transmission system.

**DE could have prevented it**

Years of active discouragement of all local power by the Ohio and Michigan utilities left the grid vulnerable to

sagging voltage. Local generation can alter its output automatically to support voltage and enable lines to carry full design power.

In neighbouring Indiana, NiSource encouraged local power at the steel mills they serve. They formed an unregulated subsidiary in 1994 that invested over \$300 million in 460 megawatts of DE. Primary Energy built five projects that recycle waste heat and normally flared blast furnace gas. All of the power is consumed at the steel mills, easing transmission congestion and supporting local voltage.

Supply has been interrupted not through a lack of generation capacity but through the inherent vulnerability of the transmission system that is required to connect remote central power plants with faraway consumers

Had the Ohio and Michigan steel mills recycled energy to produce on-site power, the plants would have supported the voltage and allowed the wires to carry more power to other consumers. All other things equal, the blackout would not have occurred. Furthermore, such actions are good for the economy and the environment. Unfortunately, laws and regulations block DE. The industry and its regulators are caught in an overloaded, wire-entangled web that blocks innovation.

## Regulations and industry

Electricity, commercialised in 1880, is arguably the greatest invention of all time. But early developers faced a big problem, finding money for wires to transport electricity to users who didn't think they needed it. To manage the risk, developers asked city councils for five-year exclusive franchises.

Thousands of small electric companies sprang up; by 1900, there were 130 in Chicago alone. Greedy

alderman sold votes to extend franchises. Samuel Insull conceived of (and got) an Illinois state granted monopoly in perpetuity. State monopolies spread.

States established regulatory commissions to approve capital investments and set rates that assured utilities fair returns on capital. Under rate-based regulation, investments in efficiency improvements increase the rate base, but all savings go to customers. This approach does not allow utilities to profit from increasing efficiency. This misalignment of interests eventually caused industry stagnation, but in the early years, utilities chased efficiency to compete with candles, oil lamps, muscle power and self-generation.

Banks cheerfully loaned money to monopoly-protected utilities fuelling a race to grow and acquire other systems. Power entrepreneurs borrowed huge sums to gain control over vast areas of the country. In 1929, the bubble burst; demand for electricity sagged, and over leveraged trusts could not pay debt service. Utility bankruptcies deepened the Great Depression. Congress's response – the Public Utility Holding Company Act (PUHCA) – prevented utility amalgamation and assigned federal watchdogs to oversee finances. PUHCA blocked profit growth via acquisition or financial engineering. Profit-seeking utilities had two options: (1) sell more power and (2) invest more capital in the rate base.

Both strategies favoured central generation over local power. Utilities sponsored research in electric appliances, motors and other novel uses of electricity that increased sales and provided significant public benefits. But they also fought local generation with every available means.

Electric distribution companies have an understandable bias against generation that bypasses their wires and cuts potential profits. Utility monopolies long made it 'Job One' to preserve the monopoly. The electric industry sponsored 'Ready Kilowatt'



## Real US Electric Prices (1996 \$s)

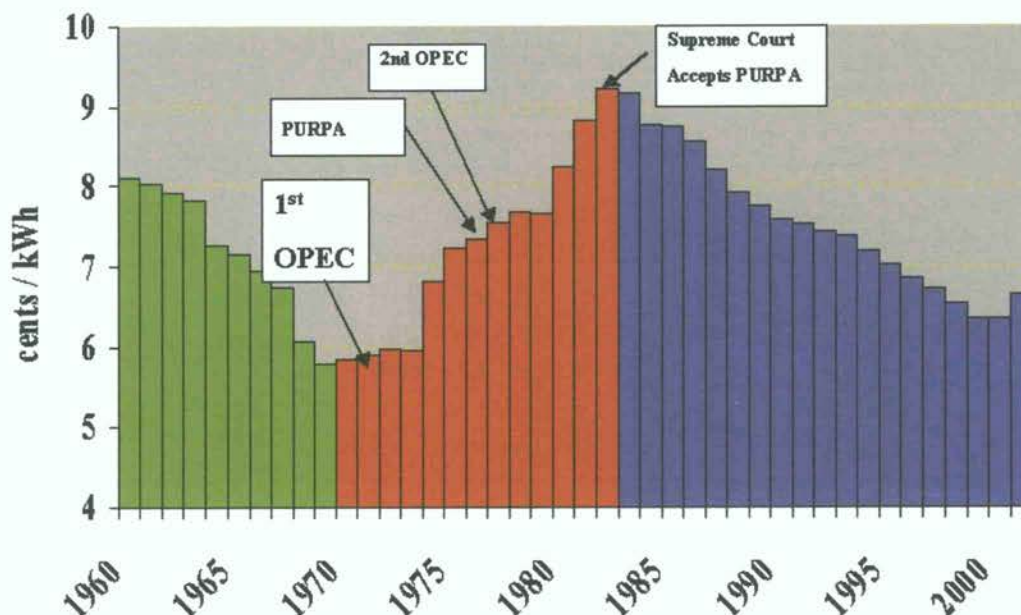


Figure 1. The rising real prices of US electricity after 1968. From 1970 to 1984, real electric prices rose 65%.

campaigns to win industry love and skillfully coached (and paid) governments at every level to block decentralised generation.

For eight decades, central generation was the optimal technology. The regulatory approach delivered nationwide electrification and real prices fell by 98%. Electrification not only improved standard of living, but also played a strong role in positive social change.

Then, beginning in the late 1960's problems arose. Central generation ceased to be optimal, but the industry ignored local power innovations. Which brings us back to stakeholder costs.

### The good times end

By 1960, as competition withered away, utilities began pursuing questionable strategies. With no way to recycle by-product heat, fuel efficiency never moved beyond 33%. Utilities and their regulators rushed to convert many coal-fired power plants to oil, just in time for the OPEC embargo in 1973. Many utilities committed to build massive central plants that required up to ten years to construct, far beyond safe planning horizons. When rising prices induced conservation, electric load growth flattened and left the industry with massive overcapacity.

Then came nuclear. The utility industry committed vast sums,

underestimating complexity and safety concerns. Some nuclear power stations were built near budget, but others broke the bank. Cost overruns of 300% to 500% were common. Long Island Lighting spent 19 years and \$5 billion building Shoreham, only to have New York Governor Cuomo close the plant before it generated any power.

Regulatory responses nearly got it right, flirting with local generation. The 1978 Public Utility Regulatory Policy Act or PURPA sought to improve efficiency by exempting plants that recycled some heat from Federal Power Act regulations and required utilities to buy power from these plants at avoided costs. Utilities fought PURPA to the Supreme Court, losing in 1984. But subsequent changes removed the pressure to build plants near users, and nascent DG was again driven back.

Next came Three Mile Island. State commissions, fed up with nuclear cost overruns and rising prices, overturned the tacit regulatory compact. They challenged the prudence of utility investments in nuclear plants, claiming mismanagement. Historically friendly regulators ordered CEOs to remove billions of dollars from rate base and reduce electric prices. Utility shareholders took a bath.

The two changes did stop electric price inflation; prices dropped to 1969

levels by 2000. But utility managements went into shock. They curtailed in-system investments, but still needed to put massive cash flow to work. Smarting from independent power producers' (IPP's) poaching of their generation under PURPA, many utilities funded unregulated subsidiaries to poach generation in other territories. Never questioning the central generation mantra, utility subsidiaries began a disastrous race to build remote gas turbine plants, ignoring this strategy's vulnerability to rising gas prices. In thirteen months following May 2001, the eleven largest merchant power plant builders destroyed over \$200 billion of market capitalisation. ENRON, NRG, and PSE&G and Mirant have since declared bankruptcy, while Dynegy, CMS and Mission struggle to pay creditors. Industry players that embraced gas-fired remote merchant plant development have seen their credit ratings lowered to junk status. These mistakes have already cost a dozen utility CEO's their jobs, pounded utility shareholders and caused enormous bank losses.

Major transmission failures did not start immediately. Spare transmission capacity, built in the days of compliant regulation, absorbed load growth until 1996, when a falling tree set off an 18 state blackout throughout the west. By



then, load growth had made the non-growing T&D system vulnerable to extreme weather (ice storms, tornados, hurricanes and drought induced hydro electric shortages), human error, and terrorists.

### Barriers to DE

As costs and environmental concerns mounted, states began to experiment with partial deregulation, but never eased protection of wires, leaving utilities free to continue fighting DG by charging excessive backup rates and denying access to customers. Commissions allowed generators to sell to retail customers, but then set postage stamp transmission rates, charging the same to move power across the street or across Texas. DG power, which only moves across the street, was left to pay identical transmission rates to power moving hundreds of miles through expensive transmission wires. Wholesale power prices give little recognition to the locational value of generation.

Environmental regulations also suppress decentralised generation. The 1976 Clean Air Act and subsequent amendments penalise efficiency. Almost all emission permits are granted based on fuel input, with no relationship to useful energy output. All new generation plants are required to install 'best available control technology', while existing plants retain 'grandfather' rights to emit at historic levels. These

grandfather rights give economic immortality to old central stations and block innovation, and thus bear some responsibility for system failures.

There are two distinct paths to avoid more blackouts.

Either spend \$50 to \$100 billion on new and upgraded transmission lines, or save money by removing barriers to decentralised generation. The first path will raise electric rates by 10 to 15% and will exacerbate other problems. The second path will cost taxpayers nothing and mitigate other problems

The costs to all stakeholders from the central generation worldview extend to other societal problems. The balance of payments suffers from needless fuel imports. The US demand for fossil fuel begets military adventures. Inefficient generation raises power costs, hurts industrial competitiveness and makes electric generation the major source of greenhouse gas emissions, threatening entire ecosystems.

### Removing the barriers

There are two distinct paths to avoid more blackouts. Either spend \$50 to \$100 billion on new and upgraded transmission lines, or save money by removing barriers to decentralised generation. The first path will raise electric rates by 10 to 15% and will

exacerbate other problems. The second path will cost taxpayers nothing and mitigate other problems.

To follow the second path, governments must:

- Allow any provider to sell backup power;
- Enact standard and fair interconnect rules;
- Void laws that ban third parties from selling power to their hosts;
- Give every power plant identical emission allowances per unit of useful energy;
- Recognise the locational value of generation; and, most importantly;
- Allow private wires to be built across public streets.

These changes would transform the \$390 billion US heat and power business into a dynamic marketplace of competing technologies and allow decentralised generation's competitive advantages to prevail. Utilities and IPP's will build new DG capacity to serve expected electric load growth and reduce transmission congestion.

Ending central generation bias will upset vested interests and require a great deal of political effort, but the rewards for this leadership will be immense – lower power prices, reduced pollution, reduced greenhouse gas emissions, and a vastly less vulnerable national power system.

#### ABOUT THE ORGANISATION

World Alliance for Decentralised Energy (WADE) is a single, effective and co-ordinated voice dedicated to the breaking down of worldwide rules so as to remove barriers and reward the value of decentralised energy to avoid T&D capital, T&D losses and to bring environmental gain. It is the only organisation in the world solely focused on changing the way the world makes electricity – moving from near total reliance on central generation to a hybrid system that generates most power where it is to be used.

#### ABOUT THE AUTHORS

##### Thomas Casten (Chairman of WADE)

Thomas R. Casten, Chairman and CEO of Primary Energy, began pioneering work towards more efficient energy generation in 1977 when he formed Cummins Cogeneration Company. In 1986, he founded Trigen Energy Corporation, which he led as President and CEO until January of 2000. In 1998 he published "Turning Off the Heat".

##### Michael Brown (Director of WADE)

Michael Brown serves as the Executive Director of WADE, the World Alliance for Decentralized Energy. He is also the Editor of "Cogeneration & On Site Power" – the international journal for decentralized energy. He has worked as a political consultant in London (1987-1991), as Assistant Director of the UK CHP Association (1992-93), as Director of COGEN Europe (1994-98), and as the Director of Braid Consulting, based in Edinburgh, Scotland (1998-present).

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# Striking a balance for sustainability

Steve Harris, UK Offshore Operators Association (UKOOA), London, UK

In 2001, when the United Kingdom Offshore Operators Association (UKOOA) first published its sustainable development strategy for the UK upstream oil and gas industry, it was in the vanguard of sectoral sustainable development work. Now in its second edition, 'Striking a Balance' is regarded as a valuable tool in promoting understanding of and debate about the industry's activities and their impacts.

The North Sea oil and gas industry is a UK success story. It has been active for over thirty years and has consistently made a significant contribution to the UK through tax revenues, exports, technology, provision of employment and skills, as well as the provision of energy.

It supports employment for around 265,000 people, invests about £8 billion in the UK annually and has contributed hundreds of billions of pounds in taxes to the UK government.

Today, however, the North Sea is mature and production is in slow decline despite the continued discovery of reservoirs (albeit smaller ones), the implementation of innovative geoscience technology and the input of world-class engineering skills.

At the same time, the UK is moving towards a more diverse energy mix as demand for energy is increasingly supported by a progressive growth of energy generation from renewable sources led in the UK by wind power. But by any reckoning, transition to a non-hydrocarbon economy will take decades to be realised.

The sector's ability to deliver the remaining oil and gas potential, estimated at 22-31 billion barrels of oil equivalent, thereby preserving jobs,



Figure 1. The Shetland coast.

revenues and security of energy supply for as long as possible, is vitally important to the UK economy. The challenge for the industry is to achieve this while at the same time continually improving its safety and environmental record.

## Sectoral strategy

The idea of developing a sectoral sustainable development strategy for the UK offshore oil and gas industry first emerged from the work of the Oil and Gas Industry Task Force (OGITF) in early 1999.

In accepting the brief, the challenge facing UKOOA as the representative body for UK oil and gas producers

was to reconcile its members' diverse corporate and cultural styles to produce a cohesive strategy that would lead the sector forward towards a broader understanding of sustainable development.

UKOOA's approach has developed in line with the government's 'Better Quality of Life' White Paper with its definition of sustainable development as "social progress which recognises the needs of everyone, effective protection of the environment, prudent use of natural resources and maintenance of high and stable levels of economic growth and employment."

Sixty-three economic, social and environmental commitments were detailed of which 90% were completed.

Accordingly, the original report published in 2001 brought together for the first time a thorough examination of the industry's economic and social contribution, its responsibilities to society, environmental performance and stewardship of natural resources. It also examined the relationships between each of these key areas.

## UK Offshore oil and gas statistics

- Around 85% of the energy consumed in the UK today comes from indigenous oil and gas reserves.
- UK oil and gas production in 2002, at 4.2 million barrels of oil equivalent per day, was valued at £21 billion, or some 2.4 per cent of Gross Value Added.
- Net exports of crude oil and gas were worth £6 billion.
- The industry accounts for 18 per cent of total UK industrial investment and supports some 265,000 jobs across the country.
- The industry has invested some £205 billion in the UK offshore sector since activity began in the mid-1960s.
- The UK economy has benefited from a total of £190 billion paid in taxes during the same period.

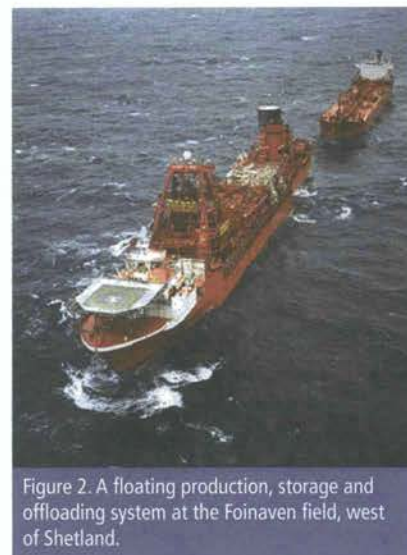
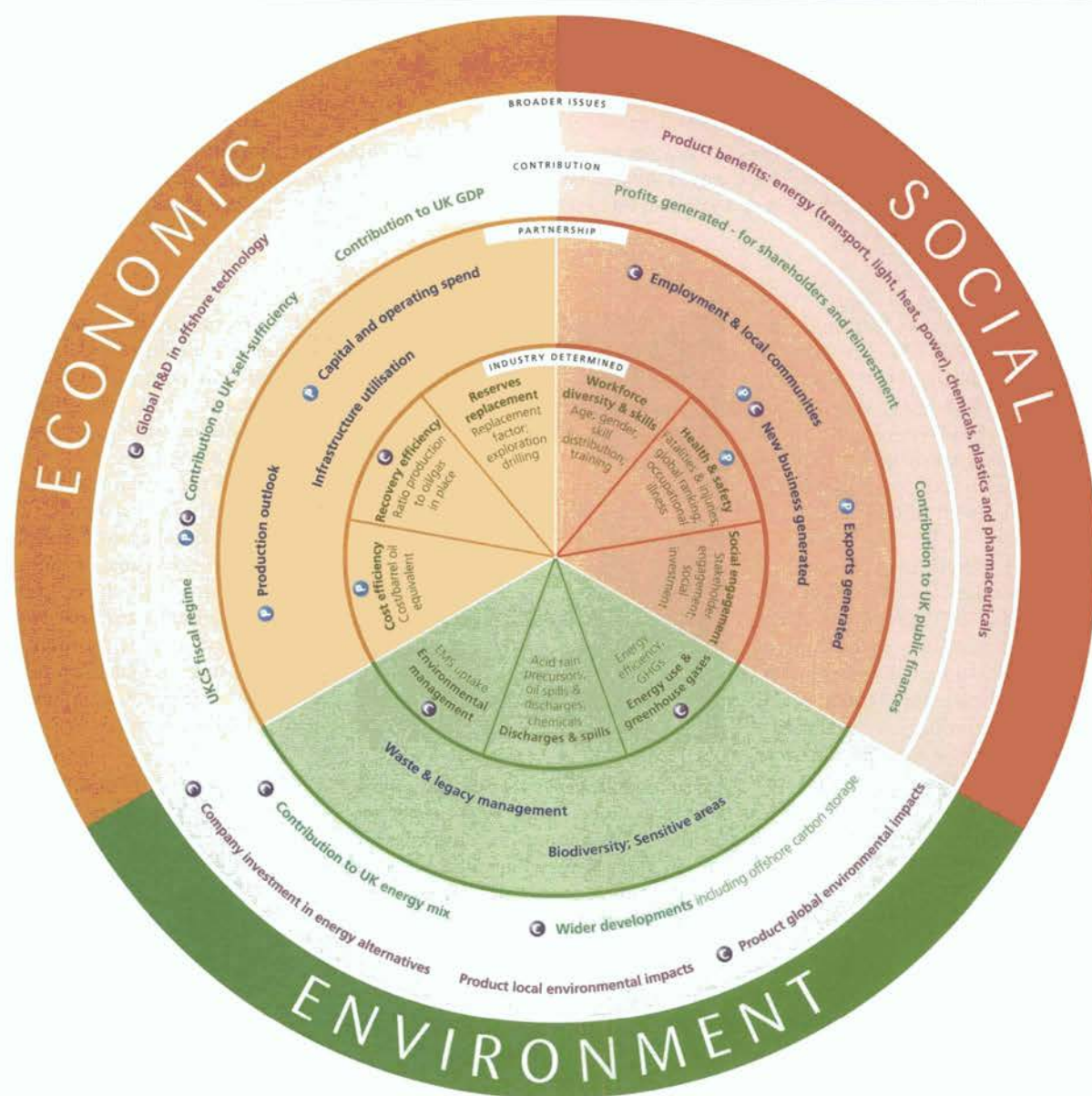


Figure 2. A floating production, storage and offloading system at the Foinaven field, west of Shetland.





KEY TO TEXT

- Industry determined indicators**  
managed by UK offshore industry,  
which largely determines  
the outcome
- Partnership indicators**  
managed by the UK industry but  
outcome dependent on government  
policy (and market conditions)
- Contribution indicators**  
contribution to a larger issue,  
whether UK or global
- Broader issues indicators**  
managed by corporate parents  
or by downstream sectors/  
end customers
- Can contribute to UK  
lower carbon economy
- Issue addressed by PILOT, the  
government-industry taskforce

Figure 3. The Sustainable Development Indicator Wheel.



Sixty-three economic, social and environmental commitments were detailed in this first edition, and of these, some 90% had been completed by the publication of the second edition.

The strategy also acknowledges the views of non-industry groups, including trades unions, local governments, ethical investment firms and NGOs (non-governmental organisations), whose contributions are gathered through direct contact or through industry-stakeholder dialogue meetings. The first of these, in November 2002, made a significant contribution in the evolution of the updated strategy.

### Sustainable development indicator wheel

The fully revised and updated 2003 document introduces the concept of the 'sustainable development indicator wheel' that identifies and articulates the key economic, environmental and social issues that shape the industry's activities.

Importantly, it also indicates the degree of influence the industry can exercise in each case.

At the wheel's core are issues that the sector can manage itself. For example, companies generally have the capability to improve oil and gas recovery rates, lessen spills or boost health and safety training and awareness.

The outer bands highlight broader issues in which the industry has varying degrees of influence, but no control. Progress in these areas can only be achieved in partnership with others. It is here that we can target optimal infrastructure utilisation, plan waste and legacy management and maximise employment opportunities.

The third ring incorporates indicators or issues that can only be dealt with by national or supra-national authorities. Such matters would embrace changes to fiscal regimes or contributions to gross national product, a country's evolving energy mix; profits generated for shareholders and taxes paid.

A two-year study has been initiated to develop sustainable development methodologies for assessing the industry's impacts relating to decommissioning, energy use, oil in produced water and employment

The issues contained within the outermost ring are managed by corporate parents or downstream sectors and end customers. They include research and development, and

Through meeting targets and assessing fresh challenges in a holistic way, the strategy aims to make sustainable development an integral part of life for all those working in and around the industry

investment in energy alternatives, as well as the end user or customer benefits of using energy – for example in transport, heat and light – balanced by costs such as contributing to climate change.

### Specific policies and goals

By illuminating the degrees to which our industry can contribute to sustainable practices, the wheel helps the sector to develop specific policies and set clear goals.

By providing a holistic perspective of the UK oil and gas sector and its place in society, UKOOA aims to encourage better long-term decision-making and hence maximise the sector's value to all stakeholders while minimising adverse impacts.

As a complementary addition, a two-year study has been initiated together with the Policy Studies Institute in London to seek to develop generic sustainable development methodologies for assessing the industry's impacts relating to decommissioning, energy use, oil in produced water and employment.

The study has attracted funding from the Engineering and Physical Sciences Research Council under the Department of Trade and Industry's Sustainable Technologies Initiative "Link" programme. Its aim is to provide valuable insights and tools that can be used not just by the oil and gas sector but also by other UK industries to improve their environmental and social performance. It is due to be completed in 2005.

The study is part of the industry's commitment to develop and meet targets that offer benefits across the spectrum. UKOOA's wider efforts to develop interest in and understanding of sustainable development are being accepted by the industry and have given stakeholders a set of clearly defined goals to address.

### An ongoing process

'Striking a Balance' is an open strategy process, continually evolving and absorbing lessons and input from a range of stakeholders and interested groups.

It is intended to be a working guide to enhance the upstream oil and gas business's contribution to the UK economy and its people while minimising adverse effects upon the environment.

#### ABOUT THE AUTHOR

The UK Offshore Operators Association (UKOOA) is the representative organisation for oil and gas exploration and production companies operating in UK waters around the British Isles. It has 29 members spanning the full range of companies currently active offshore in the UK, from the major integrated organisations including ExxonMobil, BP, Shell and Total to the new wave of independents such as Venture Production and Paladin Resources. Copies of the publication 'Striking a Balance' are available on UKOOA's website ([www.ukooa.co.uk](http://www.ukooa.co.uk)) or as a magazine publication.

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# Improving short-term sustainability of transport fuels in the developing world

The IPIECA Fuels and Vehicles Working Group, London, UK

Uncontrolled emissions from mobile sources can be a major contributor to deteriorating air quality in developing country urban environments. While developed economies debate the promise of sustainable 'fuels of the future' we must not overlook more practical short-term opportunities to improve fuel supplies in developing countries.

It is generally accepted that, for transportation fuels, a cost-effective improvement pathway will be made up of a number of changes, starting with improvements in the quality and efficiency of use of existing fossil fuels matched to a more efficient and less polluting vehicle fleet.

So-called 'alternative' energy sources, in particular biofuels, also have a part to play in creating a better future in developing economies, but care is needed in the assessment of both their environmental and economic advantages.

## Costs of mobility

There are challenges over both the timeframe and the costs for developing economies to replace their ageing vehicle fleet and introduce newer, higher quality fossil fuels. These goals are in direct conflict with market forces, which demand the cheapest possible mobility. That, in turn, leads to the importation or internal production and use of higher polluting vehicles and fuels and a perpetuation of poor air quality in urban areas. Regrettably, the less-obvious longer-term costs – those to the environment and to health – are not always apparent to consumers or regulators. To achieve maximum cost-effectiveness when considering improvements, fuels and vehicles must be considered as a combined system, so that mobility can be progressively increased. At the same time there must be an acknowledgment of the need for a socially responsible approach to the health and environmental aspects of mobility; we need to heed the lessons from the 20th Century smogs of Los Angeles and Athens.

Figure 1 shows graphically a world energy demand prediction: it is immediately apparent that while conventional (fossil fuel) energy demand in the developed world is predicted to rise by less than 1% per year to 2020, developing country energy use is expected to increase substantially, with strong growth in the transportation sector. Cost-wise, the

consensus is that, in the absence of major public policy shifts, fossil fuels will remain cheaper than alternatives for the foreseeable future.

## Fuels and energy futures

To have the maximum short-term impact on fuel sustainability there is a need to make vehicles and fuels less polluting, and to achieve this particularly in the developing economies. In making that shift, small initiatives in the

There must be an acknowledgment of the need for a socially responsible approach to the health and environmental aspects of mobility

developing economies can play a major role. One such initiative is the introduction and maintenance of catalytic converters on all passenger cars. Catalyst incompatible additives such as lead are still in use in developing countries, and this prevents them from gaining the benefits of more advanced vehicles and fuels. To make a difference and create the drive for change, the IPIECA Fuels and Vehicles Working Group (FVWG) has a remit to work on behalf of the oil and gas industry to accelerate the global phase out of lead additives in gasoline. And the remit also

requires FVWG to look at other fuel quality changes that could promote a socially responsible and economically viable future with improved health and environmental benefits.

## Unleaded gasoline benefits

Gasoline requires a certain octane quality to prevent the engine from knocking, which is the uncontrolled combustion of the last part of the fuel/air mixture in the combustion chamber. Knock can reduce engine efficiency, reduce power, increase heat load on the cooling system, increase hydrocarbon emissions, and can cause engine damage. The required octane either has to be produced at the refinery by intensive processing, or through the addition of additives such as lead alkyls, which were discovered by General Motors in 1921. The use of lead additives continued through the 1970's, at which time mounting concern over the use of lead eventually caused successive governments to ban the use of lead additives in gasoline. From an urban air quality point of view, the banning of lead is key to the introduction of exhaust catalysts to meet vehicle exhaust emissions limits aimed at improving air quality. Vehicle emissions increase substantially when lead from the anti-knock additives, carried in the exhaust gases, is deposited on the active catalyst sites, 'poisoning'

### IPIECA and the FVWG

The Fuels and Vehicles Working Group (FVWG) of the International Petroleum Industry Environmental Conservation Association (IPIECA) addresses the challenges of improving environment and health by providing a coordinated industry response to fuels issues. This emphasises social responsibility, good environmental practices matched with economic soundness, and improving understanding of the sources and impacts of vehicle and fuel emissions. A current focus of the FVWG activity is in promoting the removal of alkyl lead from transportation fuels from the remaining areas in the world where it is still used. Another area of involvement concerns the use of fuel additives as well as the control of sulphur levels in diesel and gasoline. The FVWG focuses on developing and transition economies, where difficult decisions will need to be made in order to reconcile desired environmental and health improvements in the face of economic realities.



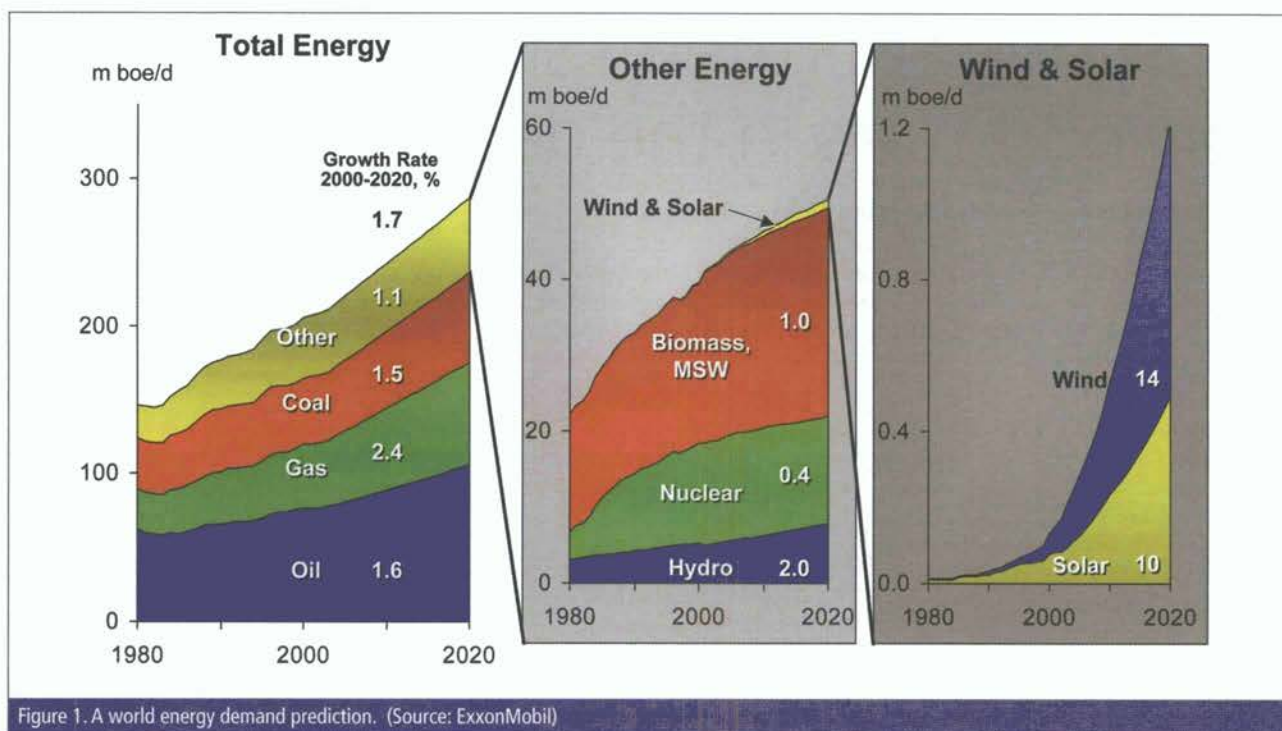


Figure 1. A world energy demand prediction. (Source: ExxonMobil)

the catalyst, and vehicles equipped with catalytic converters cannot therefore be used with leaded gasoline. The majority of developing country vehicle populations – including new vehicles – are not equipped with catalytic converters.

The benefits of catalytic converters in reducing local emissions completely justifies the introduction of unleaded gasoline (ULG) in developing countries – preferably with a concurrent elimination of leaded fuels to prevent any cross-contamination through misfuelling. The benefits for the motorist of changing to ULG are well documented and can include lower service costs, extended oil change intervals, cleaner spark plugs and a potential for increased fuel economy by reducing the likelihood of misfires. Although studies show a wide variation in the resulting cost savings, the benefits are tangible.

### Development challenges

Removing lead from gasoline is illustrative of the challenge of ensuring that improvements in environmental performance are not impeded or offset by social and economic considerations. Unlike those developing countries that have refineries, non-refining countries that are able to independently import their gasoline are usually able to switch their entire gasoline supply to ULG within weeks or months, and at minimal cost. However in developing countries – and even some relatively well-developed ones – that have a refining infrastructure, the arrangements

for providing transportation fuels are very different from the relatively free-market system in the West, where private ownership and a strong regulatory system are the norm. In developing countries, total or partial (usually majority) state ownership of refining facilities – often in association with preferred oil and gas industry partners – is common. This situation arises in a variety of ways, but the

What is sustainable in  
one country may not be in another,  
and individual countries and regions need  
defined ULG implementation strategies  
based on local needs, cultures  
and infrastructure

reasons for its continuance are almost always related to concerns over security of supply, the provision of affordable, or subsidised, fuels, and employment, not to mention national pride and ambition. While the regulated pricing structure that often accompanies state ownership often provides adequate returns to the owner, state ownership has a serious disadvantage from a sustainability point of view: the industry regulator and facility owner are, at some level, partly or wholly the same, and environmental upgrade investment projects must compete for funding against social improvement projects, usually in a regulated market where the ability to recover additional costs at the pump is limited.

Faced with this reality, and in the face of concerns over compatibility of older vehicles with unleaded fuels, some governments have chosen a softly-softly approach where ULG was introduced in limited quantities – usually in urban areas – with a small tax subsidy at the pump to encourage ULG uptake – even in vehicles that are not equipped with a catalytic converter. While such taxation mechanisms have been successfully applied in developed countries, in developing countries this has on occasion been viewed as a cross-subsidy which unfairly penalises owners of vehicles that theoretically cannot use ULG – generally older vehicles owned by less affluent sections of the population. In at least one case this has resulted in a reversal of the tax subsidy philosophy and the pegging of ULG prices at a level where they are unattractive to the consumer, with consequent poor market penetration.

This inappropriate use of imported strategies has also influenced some developing country choices of replacement octane and gasoline additising strategies, which are sometimes applied without regard for local circumstances – for example differences in age and 'turnover' – the rate at which vehicles are replaced. The lesson is clear: what is sustainable in one country may not be in another, and individual countries and regions need defined ULG implementation strategies based on local needs, cultures and infrastructure, rather than wholesale importation of Western approaches.



## The fuels challenges

Perhaps no one region encapsulates the above challenges as completely as sub-Saharan Africa (excluding South Africa).

Keeping some of the aged and/or simply-configured refineries running profitably is difficult enough. Of Sub Saharan Africa's 30 refineries built since 1945, twelve have now closed, six of these within the last five years. The remainder now face international pressure to remove lead additives from gasoline and to manufacture fuels compatible with the latest vehicle technologies from Japan, Europe and the USA.

When faced with competing priorities (housing, water/sanitation, Health/HIV, and national security/civil unrest to name just a few), and a public sensitive to transportation price increases, the economic case for short term government spending of several hundred million dollars on refining projects to alleviate a long term public health concern that cannot immediately be touched, tasted, or felt, is difficult to make.

Despite this, there are some cost-effective actions that can be taken in the short term to improve developing country fuel supplies, such as harmonising key fuel specifications, introducing appropriate octane grades, and mandating and enforcing minimum quality standards at the pump. In the absence of a central standards organisation, specifications and practices vary widely between countries and regions, in many cases as a result of former ties to developed economies. These regional inconsistencies in turn provide opportunities for fuel smuggling and adulteration that further weaken supply infrastructure and drain revenue. But standardising on an appropriate octane specification across the sub-Saharan region, would actually save money by reducing inventory, freeing up tankage, and reducing fraud, quite apart from the potential for cost savings at the refinery or on the use of additives.

Similarly, other parameters could likewise be set to encourage cost-effective regional harmonisation. However it will be important always to bear in mind that the rate of motorisation and vehicle fleet turnovers are quite varied in different regions of the world; it will be critical to ensure that fuel quality changes are made at a rate that is commensurate with the introduction of vehicle technologies and local infrastructure – such as

inspection and maintenance programs – that can complement more advanced fuels. It will also be important to assess:

- The relative ranking of the cost-effectiveness of various emission control measures;

Some cost-effective actions can be taken in the short term to improve developing country fuel supplies, such as harmonising key fuel specifications and mandating and enforcing minimum quality standards at the pump

- The implications of limited resources – capital and manpower – which might limit the implementation of the most technologically advanced approaches in some areas;
- The need (and associated costs) of new distribution, maintenance and training infrastructure; and
- The cost of refinery modifications and the impact of changing product quality specifications on jobs, and energy security considerations.

## UNPCFV and CAI

Reconciling all the above might appear at first sight to be a Sisyphean task, however in practice two organisations have emerged to promote the advancement of the sustainable fuels agenda: The United Nations Partnership for Clean Fuels and Vehicles (UNPCFV: <http://www.unep.org/pcfV>) and the World Bank Clean Air Initiative (CAI: <http://www.worldbank.org/wbi/cleanair/>).

The World Bank CAI is primarily a forum to improve air quality in cities by sharing knowledge and experiences through partnerships in selected regions of the world, while the UNPCFV was founded in the lead-up to the World

Summit on Sustainable Development (WSSD), held in Johannesburg in 2002, as a partnership between industry, governments, NGOs and civil society to promote cleaner fuels and vehicles.

IPIECA works with both of these organisations to foster a balanced partnership approach to improving fuel and vehicle systems.

## Conclusion

While attention in developed countries is switching to concerns such as particulates and CO<sub>2</sub> emissions in transport fuels and the potential for gas and hydrogen fuel cell vehicles, we must not overlook our responsibilities to improve developing world fuel-vehicle systems. While the debate over the sustainable fuels of the future goes on, the biggest global 'bang for the buck' is probably to be had through a sustained focus on reducing local emissions, improving developing country fuel choices and ensuring closer matches between the available vehicle technologies and the quality of fuels in a given region.

The biggest global 'bang for the buck' is probably to be had through a sustained focus on reducing local emissions, improving developing country fuel choices and ensuring closer matches between the available vehicle technologies and the quality of fuels in a given region

### ABOUT THE ASSOCIATION

The International Petroleum Industry Environmental Conservation Association (IPIECA) is comprised of oil and gas companies and associations from around the world. Founded in 1974 following the establishment of the United Nations Environment Programme (UNEP), IPIECA provides the oil and gas industry's principal channel of communication with the United Nations. IPIECA represents its members on a number of key issues including: oil spill preparedness and response; global climate change; health; fuels & vehicles; biodiversity; and social responsibility. Through a Strategic Issues Assessment Forum, IPIECA also helps its members identify new global issues and evaluates their potential impact on the oil and gas industry.

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# Striving for Sustainable Logistics

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## Networking the world



Dr. Klaus Zumwinkel, CEO Deutsche Post World Net

*"Our aim is to provide excellent service quality to our customers at attractive prices in the most environmentally-friendly way possible. Globalisation and global trade are generating more and more transport and traffic, thus affecting the environment and climate alike. The challenge for our company is to reduce the utilisation of resources and the impact on the environment by providing the highest possible level of efficiency."*

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Trade in goods does not stop at national borders. It is a mixture of a large number of individual orders, regular shipments for business and industry and so-called value-added services. Logistics is therefore a planning and intellectual challenge for our specialists at DHL. As such, efficiency is an economic requirement and helps our customers to enhance their environmental track record.



## The road map

*Selected measures we have implemented according to our main targets:*

### ■ Optimising transport flows and networking different modes of transport

With the Group's new integrated pick-up and delivery network in Europe, the number of trips will be reduced by more than 5% by 2005. Capacity utilisation per trip will be increased by 10%, cutting down on fuel consumption and emissions.

### ■ Expanding the fleet of modern, fuel-efficient vehicles and aircrafts

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# The roads to destruction

Nicoleta Ion & Anne Sayer, T&E, Brussels, Belgium

A swathe of new transport infrastructure projects appears to be on the agenda for the enlarged Europe. T&E, Europe's federation for transport and environment, detects alarming sleight of hand in the European Commission's handling of the projects and asks whether these costly schemes are justified.

Situated on the cusp of two different climate zones, Kresna gorge in Bulgaria is blessed with a wealth of plant and animal species. But if the new plans of the European Commission have their way, this unique habitat will be torn apart by the construction of a massive new motorway through the gorge, which will also severely blight the local community. The people affected will have very little say in the matter – and they will not be alone. The planned motorway, linking the country's capital Sofia and Thessalonica in Greece (see Case Study 1), is on a wish list of 29 massive transport infrastructure projects unveiled by the European Commission in October, at an estimated total cost of €220 billion. Most of the road schemes on the list are in the EU accession countries of Central and Eastern Europe, while the current EU member states are to see a surge in high-speed rail capacity.

These projects are new additions to the list of Trans-European Networks for Transport created in 1996 – commonly referred to as the TENs priority list or just TENs. Basically, they are transport infrastructure projects receiving priority European Union backing and funding. Their construction is intended

to make the EU more competitive and promote intermodality – interchange between two or more types of transport.

Several causes for alarm

Unsurprisingly the announcement of such a vast amount of new building work immediately set alarm bells ringing within environmental groups. But this alarm was not simply about the new construction per se; it was also about the detail of the Commission's proposals. A closer look reveals a revision of the rules on TENs construction that appears to ride roughshod over existing EU legislation intended to safeguard the three pillars

of sustainability – economic and social as well as environmental. In other words, whoever is pushing for these proposals to be made into law is keen to ensure that nothing will stand in the way of major schemes such as the Kresna motorway or the Messina strait bridge in Italy once they are approved at EU level – regardless of the resulting damage to local communities and the environment.

How does the European Commission intend to achieve this? First of all by declaring that the projects are of "European interest", and then by getting the approval of both the European Parliament and the Council of Ministers, thus making the designation legally binding. The designation means that even if the majority of stakeholders in one country were to oppose a TEN project for environmental or other reasons, their views could simply be disregarded because the European concerns would override the local ones. Despite their size and potential impacts, it also looks unlikely that the projects would be subject to the EU's legally binding

This dubious assessment, even though consultation lasted both environmental NGOs and the European Parliament have requested that this be done. Instead the Commission is proposing a new instrument – a transnational assessment, essentially a fast-track appraisal that would look at all aspects and implications of a scheme in one fell swoop, however many countries are involved. Most worrying of all, the Commission is suggesting that this assessment should not be legally binding. This means that even if the assessment turned out to be extremely negative, the TENs scheme could be considered as being of such importance

at European level that this assessment could simply be ignored. The European interest tag is also a seal of approval that grants the TENs projects access to a wealth of EU financing streams, including from the structural and cohesion funds. Another warning bell should immediately sound at this point. These funds are intended for local or regional schemes to improve local capacity – not for big prestige projects geared to providing the whole of the EU with an as-yet unproven added value.

It is the EU taxpayer who will ultimately foot the bill for these huge projects. Four-fifths of the funding for the new TENs projects are to come from the member states themselves, the European Commission has said, with the remaining 20% supplied by a special TENs budget line in the EU's finances. The Commission also wants to change the rules so that private investment in the TENs projects becomes more attractive. Multiannual commitments would provide a guarantee to private sector promoters of TENs projects, who would also benefit from a "greater flexibility" in their financial commitments. Transport commissioner Loyola de Palacio said at the launch of the Commission's plans that "the new rules and structure proposed should provide a means of attracting more funding to the priority projects and of turning them into reality faster."

## The story of TENs

But why is the Commission so keen to ensure these projects be put in place? It is worth delving briefly into the history of the TENs for an answer. The concept of the Trans-European Networks for Transport was introduced to the EU under the 1992 Maastricht Treaty. Four years later an initial list of 14 projects was added (in the Annex to the Directive on Trans-European Transport Networks). Only three of these have



### Case Study 1 – Bad news for Kresna

The Kresna gorge, a 17 kilometre rocky valley in southwest Bulgaria, hosts an enormous diversity of plant and animal species of EU importance, including 17 species of bats and 31 species of reptiles and amphibians. It is under severe threat from a planned development, upgrading an existing two-lane road, which runs through the gorge, to a 25 metre wide motorway.

The motorway is one of the European Commission's planned new TENs projects and would form part of a strategic route between Sofia in Bulgaria and Thessalonica in Greece. Kresna gorge is protected under Bulgarian law and is also a candidate site for the EU-wide network of protected natural habitats 'Natura 2000'. If this road-building proposal goes ahead it will result in direct habitat destruction as well as habitat deterioration through increased noise, pollution, erosion, disturbance and the creation of a barrier along the migratory routes of animal species. The planned motorway will also affect nearby settlements through demolition, loss of fertile agricultural land, increased noise, pollution, accident risk and reduced amenity, and will pass within 30 metres of buildings in the town of Kresna.

There is an alternative route outside the gorge, which would reduce the negative impacts of the proposed motorway on both the natural habitats and the local people. So far, the Bulgarian government has refused to consider it. Environmental NGOs are demanding that a full environmental impact assessment of the road and its alternatives is carried out before any funding decision is made.



Kresna gorge today – the new motorway will be bigger.

been completed so far – the Channel Tunnel, the Malpensa Airport in Milan and the Øresund Bridge between Denmark and Sweden. Although some of the remaining 11 projects are well underway, many have stalled, most often because of a lack of cash, local inertia, inability to reach cross-border agreement or even local opposition to projects. There has been much hand-wringing within the Commission about the failure in getting these projects in place – particularly as they are intended to confer economic wealth and prestige upon the EU. The Commission has come up with various schemes to enable the EU member states to plug funding shortfalls, for example through a recent rewrite of the rules on using revenue from road user charging. But it also wants to ensure that there is no way a project can fail for any of the

other reasons – and this is where the new proposals come in.

If the proposals are approved as they stand, much of the hard-fought EU legislation aimed at protecting the environment will be rendered simply meaningless

#### This year's TENs list

This year, with enlargement looming on the horizon, the Commission ordered one of its former members – ex-competition commissioner Karel Van Miert – to come up with an expanded list of TENs projects, together with a report justifying the reasons for pushing them forward. From this the Commission began putting together its own proposal, including a list of

projects and a planned rewrite of the rules on TENs, making it easier for these to be implemented, from both a planning and a funding point of view.

But instead of producing a proposal for circulation to interested parties, which would have been standard practice, the Commission simply told those concerned to respond to the so-called Van Miert report and its recommendations. This dubious consultation lasted barely six weeks, taking place over the summer, the time when the European Union institutions effectively shut down and MEPs and Commission civil servants leave Brussels for an extended break – not an ideal time to talk to and influence people in high places.

It is worth taking a step back at this point to look at the general issue of new transport infrastructure construction. The Commission's main

### Case Study 2 – Blue for Danube

The Van Miert report included a project intended to remove the bottlenecks on the Rhine-Main-Danube link in order to improve its navigability and to favour the transfer of freight traffic from road to waterways. The European Commission took this recommendation and set 2011 as a deadline for removing the bottlenecks in Romania and Bulgaria, 2014 for the bottlenecks in Hungary, and 2015 for the Vienna to Bratislava section. Although the Commission does not specify the implications this will have, the whole proposal is clearly based on the Van Miert report, which would have disastrous consequences for large stretches of the river.

The works would affect valuable wetland areas between Vienna and Bratislava, including the Danube National Park in Austria, and would disturb the intact stretches of river between Romania and Bulgaria, including many small islands. WWF estimates that over 80% of the Danube's floodplains have been destroyed already in the past 100 years. Removing the bottlenecks will also remove some of the 20% that remain.

If adopted by the Parliament and the Council in its present form, the 'Danube bottlenecks' project will contravene both the EU Habitats and Birds directives and the Water Framework directive. NGOs also fear that the proposed sections are just an example of the salami-slicing tactic, with the final project resulting in even further damage to sections that have, for now, been omitted from the proposal.



Threatened wetlands in Danube National Park.



justification for spending such a large sum of cash is that the projects will boost the competitiveness of the European Union. “The trans-European networks are a motor and precondition for Europe’s economic development and cohesion,” said commissioner de Palacio when the proposals were revealed. In other words, new road, rail and other transport infrastructure schemes are needed to help boost the EU economy.

In terms of road building particularly, this is quite simply false. Rather than solving congestion problems, building new roads generates more traffic, bringing with it problems of additional pollution, congestion, community severance and accident risks among many others. Even worse, road-building does not bring automatic economic benefits, and even when benefits are generated for the economy as a whole, that does not mean that it is the intended target that benefits (a road leads two ways, and the benefits may

flow in the undesired direction). This conclusion was drawn by a UK government-commissioned team of experts in the 1999 SACTRA report. This report drew on a wide range of research and has since become a seminal text, promoting a widespread shift among policy-makers away from the blinkered belief that new roads were unquestionably good for the economy. Until now, that is.

With this summer’s questionable consultation process long over, member state ministers and MEPs now have an opportunity to debate and hopefully change these damaging proposals. It is crucial that they be made to understand just how severe the social, environmental and economic damage from the new TENs projects will be, particularly in central and eastern Europe, which is to see a steep increase in investments, without a similar increase in assessment capacity. At the very least they should ensure that each project be subject to a rigorous

and legally binding environmental assessment. Another hope is that the Commission’s proposals will simply prove illegal under EU law. During the commission’s internal consultation process, even its own legal team expressed concern over the legality of the ‘European interest’ designation, and this anachronistic term will continue to be the subject of controversy in the months to come. One thing is sure, however. If the proposals are approved as they stand, much of the hard-fought EU legislation aimed at protecting the environment will be rendered simply meaningless.

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# Global opportunities for NGVs

Jeffrey Seisler, European Natural Gas Vehicle Association (ENGVA), The Netherlands

The global market for Natural Gas Vehicles continues to expand at varying rates across the world. However, the commercial forces that are necessary to support natural gas as a true alternative to petrol and diesel have not developed sufficiently. The status quo has to be challenged and three main areas need to be changed.

The market for NGVs is growing; slowly but steadily in some countries, more rapidly in others. There is now a global network of over 6,300 fuelling stations serving 3.1 million natural gas vehicles (NGVs) comprising a wide range of fleet, commuter and off-road vehicles from forklifts to ships.

Markets are being driven by a combination of forces: government support, natural gas industry support, availability of NGV technologies (vehicles and fuelling stations), and concerns about environmental quality and energy security. But the key to the equation is the economics (or cost) of NGVs, which needs to be right to ensure their sustainability.

## A true alternative

The growth in many markets over the past two decades is dramatic and impressive. But NGVs have not yet been able to establish themselves as true alternatives to petrol and diesel in the vehicle and fuels markets. The various elements of the commercialisation equation have not always quite combined into the right formula. For example:

- Argentina and Brazil combined have 1.4 million NGVs and a matching fuelling infrastructure of some 1500 stations. 14% of Argentina's vehicles and almost 2.5% of Brazil's are driving on natural gas. But the use of different fuel connectors used in the two countries make cross border NGV travel difficult. The markets in the two countries are dominated by conversions instead of factory-built, fully warranted NGV technology. Now, the original equipment manufacturers (OEMs) finally are beginning to provide their own approved conversions in the Ford QVM (qualified vehicle modifier) model.
- In the US and across Western Europe standardisation of equipment has been more-or-less achieved, and there is growing government support to help stimulate market growth. But fully

coordinated, homogeneous support from the broad gas industry on both continents is lacking. So too is the sort of volume of demand for vehicles that exists in Argentina and Brazil. If these factors were present they could motivate major investments and enthusiasm from the vehicle manufacturers to supply more types of NGVs.

- The Asia-Pacific NGV market has been expanding impressively in the past few years: Pakistan has 360,000 NGVs and 360 fuelling stations; India has 137,000 NGVs and 120 stations; and China has over 69,000 NGVs and 270 stations. These countries and others are on a sharp growth curve not previously associated with NGVs. Clean air politics, and the low cost of natural gas compared to petroleum, are key market drivers. But standardisation of equipment and installation is lacking, and the OEMs are showing only marginal interest so far.

The vehicle manufacturers and the fuel providers are clinging steadfastly to their bread-and-butter status quo core businesses, rather than supporting commercialisation of the world's NGV market

The confluence of commercialisation forces – technology availability, growth in the fuelling infrastructure, government support and economics – has not yet meshed adequately to support solid, sustainable market growth around the world. The principal stakeholders in the process, namely the vehicle manufacturers and the fuel providers, are clinging steadfastly to their bread-and-butter status quo core businesses, rather than supporting commercialisation of the world's NGV market.

The fascinating feature of this situation is, however, that the NGV

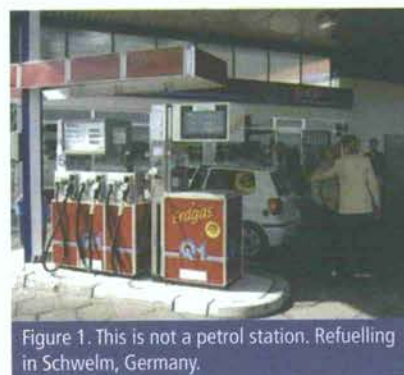


Figure 1. This is not a petrol station. Refuelling in Schwelm, Germany.

champions – including many satisfied customers – know that we are on the right track, with technology that continues to be the low emission benchmark for petrol and diesel vehicles to achieve, and an abundant fuel that is recognised by many worldwide as the next best thing to the panacea hydrogen. So, what can be done to ensure that the commercial forces merge successfully – and soon – to capture the kind of market share that would fulfill the potential benefits both global and local, touted by the NGV champions?

## Necessary changes

Three things must happen. Key stakeholders need to make two major paradigm changes, and the NGV industry needs to take action on a global scale. With these changes, NGVs can be given a legitimate global market force. In summary:

### 1. OEMs have to act locally

The large vehicle manufacturers started to think globally in the 1980s and 1990s. They need also to take local action to make appropriate vehicles for different markets, as well as identifying common vehicle potential.

One of the keys to survival for OEMs has been global market expansion outside of their normal domestic markets. Survival continues to be a major challenge. For example, the number of chassis – the most costly part of vehicle development – is being minimised and spread worldwide in order to sustain the variety of vehicle



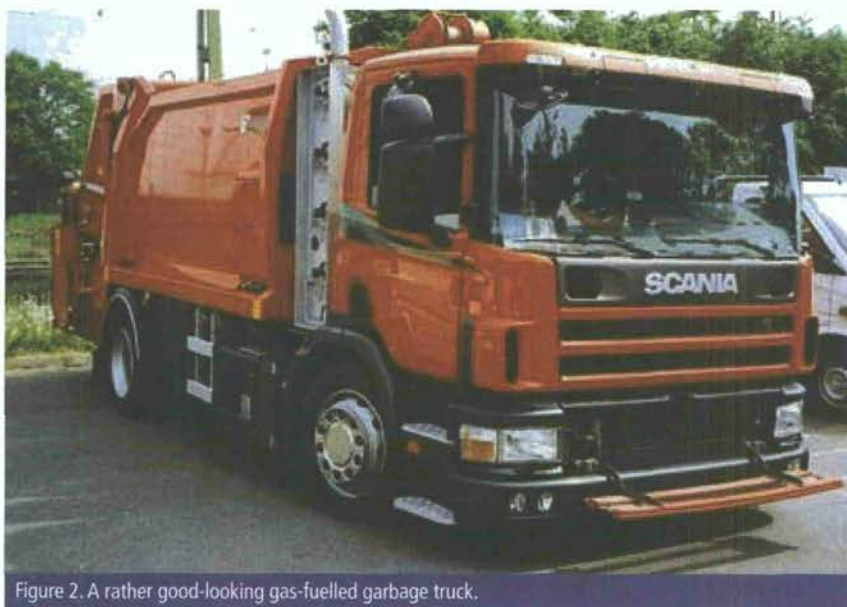


Figure 2. A rather good-looking gas-fuelled garbage truck.

options demanded by customers, but at a reduced cost. When it comes to NGVs, the OEM mantra for years has been, "Show us a market and we'll show you vehicles." Indeed, some 50 manufacturers make about 150 vehicle and engine models worldwide, more than for any other alternative fuel. But even sales of 20,000 vehicles (Fiat sold 17,000 NGVs in Italy in 2001, a milestone for NGV champions), is only a drop in the manufacturing bucket for an OEM. So what needs to be done so OEMs can profit from NGV sales?

The OEMs' global philosophy needs to be reformulated into local action. This means that the various active NGV markets worldwide must be evaluated as to the type of vehicle demand that exists, and the same OEM NGVs have to be manufactured for those various growing markets. Using the same platforms and existing engines, the currently segmented world NGV markets could be viewed for their combined growth opportunity. This would begin to provide the sustainable vehicle demand that is needed and that will not necessarily be supported by markets in the US, Europe and Japan alone. OEM NGVs with a European Whole Vehicle Type Approval are accepted for registration right across Europe and also in most other countries with the exception of the US and Canada and a few others, but this is no different than it is for normal gasoline and diesel vehicles. With enough worldwide demand for a similar vehicle, even issues associated with downstream distribution and servicing (i.e. training mechanics and providing spare parts) can be overcome if the demand is

substantial and sustained. NGV champions worldwide need to work closely with the various OEMs to identify the common vehicle potential that will help generate sustainable OEM profits and provide widespread availability of NGVs.

## 2. CNG Diversification

The oil industry should start thinking strategically to diversify its product mix to include Compressed Natural Gas (CNG). This would improve the industry's ability to supply petroleum products in the long-term, as well as giving them the opportunity to make profits on CNG.

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There is likely going to be continued pressure on the oil exporting countries to balance world oil supplies. Many of the large oil companies have substantial natural gas reserves. CNG could prove a valuable addition to the arsenal of petrol station products as a hedge against supply shortages and disruptions. Normally, gas station owners tend to make a higher profit margin on CNG than they do on petrol. BP has found their CNG market to be strong in Egypt; Petrobras in Brazil is investing millions to

incorporate CNG into their existing petrol station network as customers line up, unfortunately, for hours to get a natural gas fill-up.

In some countries, notably Germany, Egypt and Italy, there are oil and gas industry partnerships to sell and/or transport natural gas to customers through a CNG dispenser. In Germany the CNG champions of the natural gas industry have formed financial and marketing alliances with Aral, Shell and Total to introduce 1,000 fuelling stations in the next four to five years. In Britain, Esso/Mobil CNG (a new division of the oil company) has just invested in two of the world's largest fuelling stations to support a fleet of 100 heavy goods vehicles operated by Safeway. So the message is beginning to emerge, but much more needs to be done to link the CNG advantages to the global growth markets. For those oil companies with thoughts of adding hydrogen to their fuel mix of the future, CNG can provide a valuable stepping-stone. Adding CNG to a fuelling station today pays the investment in laying gas pipe to stations where tomorrow natural gas could be reformed on-site into hydrogen. It also offers an opportunity to get building code officials, fire marshals and customers familiar with the advantages of handling gaseous fuels, something that most hydrogen advocates have not even begun to think about.

## 3. Global harmonisation

Standards need to be harmonised internationally, with the goal of facilitating the creation of an easy access global NGV market.

The widespread patchwork of NGV standards – while admirable in its advances over the past 20 years – still provides a challenge for equipment suppliers who have taken bold steps to internationalise their product distribution. The Italian, US and European standards institutions have led the NGV standards development process. Since 1994 the process of working with the United Nations to incorporate some of these standards for nations who have signed specific treaties has been a further step in the direction of helping equipment suppliers build standardised NGV systems to sell in multiple markets. That lowers the cost of manufacturing and, thereby, the price to consumers. It also encourages and enhances safety. The International Association for NGVs this year has started an attempt to harmonise NGV standards but it is hard to gather experts



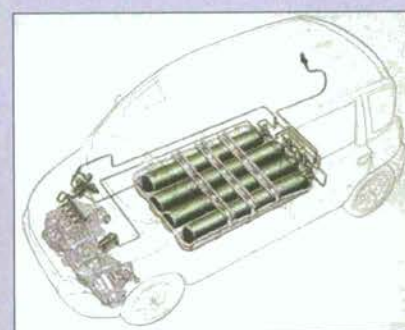


Figure 3. One of the new generation of NGVs.

from every corner of the globe, all of whom need financial support from their companies to facilitate what eventually must become a reality – for CNG, LNG, biogas and ultimately, hydrogen.

To truly facilitate the harmonisation of gaseous fuel standards, support and leadership is required from governments in the major markets where NGVs are being developed – notably the US, the European Commission, Japan and now from South America as well. To start the process, some of the key country governments should organise an effort – possibly under the auspices of the United Nations in Geneva – to develop a regularly scheduled, systematised process by creating a Worldwide Conference on Harmonisation of Gaseous Fuels. The equipment manufacturers of NGVs

(and LPG) are nearly the same as those who also are now developing equipment for hydrogen and hydrogen vehicles. A Worldwide Conference on Harmonisation of Gaseous Fuels (WCHGF) would not only benefit

Support and  
leadership is required from  
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being developed

NGVs, but it would help smooth the way for hydrogen standards before they face the identical, market hindering problems as has been experienced in the CNG markets.

The future could come soon

It is necessary to overcome institutional and industry forces that favour the status quo if progress is to be made in developing more environmentally friendly fuels and vehicles. It is not good enough for the major vehicle manufacturers and fuel suppliers to defend their status quo core businesses without some serious expansion outside their normal mindset. If, with the help of governments and international institutions these industries can be presented with policies and actions that show in a positive-sum fashion the ultimate profit motivation of moving more into Natural Gas Vehicles (bridged with hydrogen in the future), the future will arrive much sooner.

#### ABOUT THE ORGANISATION

The European Natural Gas Vehicle Association was founded in 1994 with 63 original members including natural gas companies, vehicle and equipment manufacturers, NGV service providers. It now has 280 members from 45 countries worldwide, but mainly located in Europe. ENGVA's mission is to create a favourable regulatory and legislative environment for the development of a commercial market for vehicles running on natural gas, biogas, and hydrogen made from natural gas. The association engages in lobbying, marketing and technology development in support of its members' professional activities.

#### ABOUT THE AUTHOR

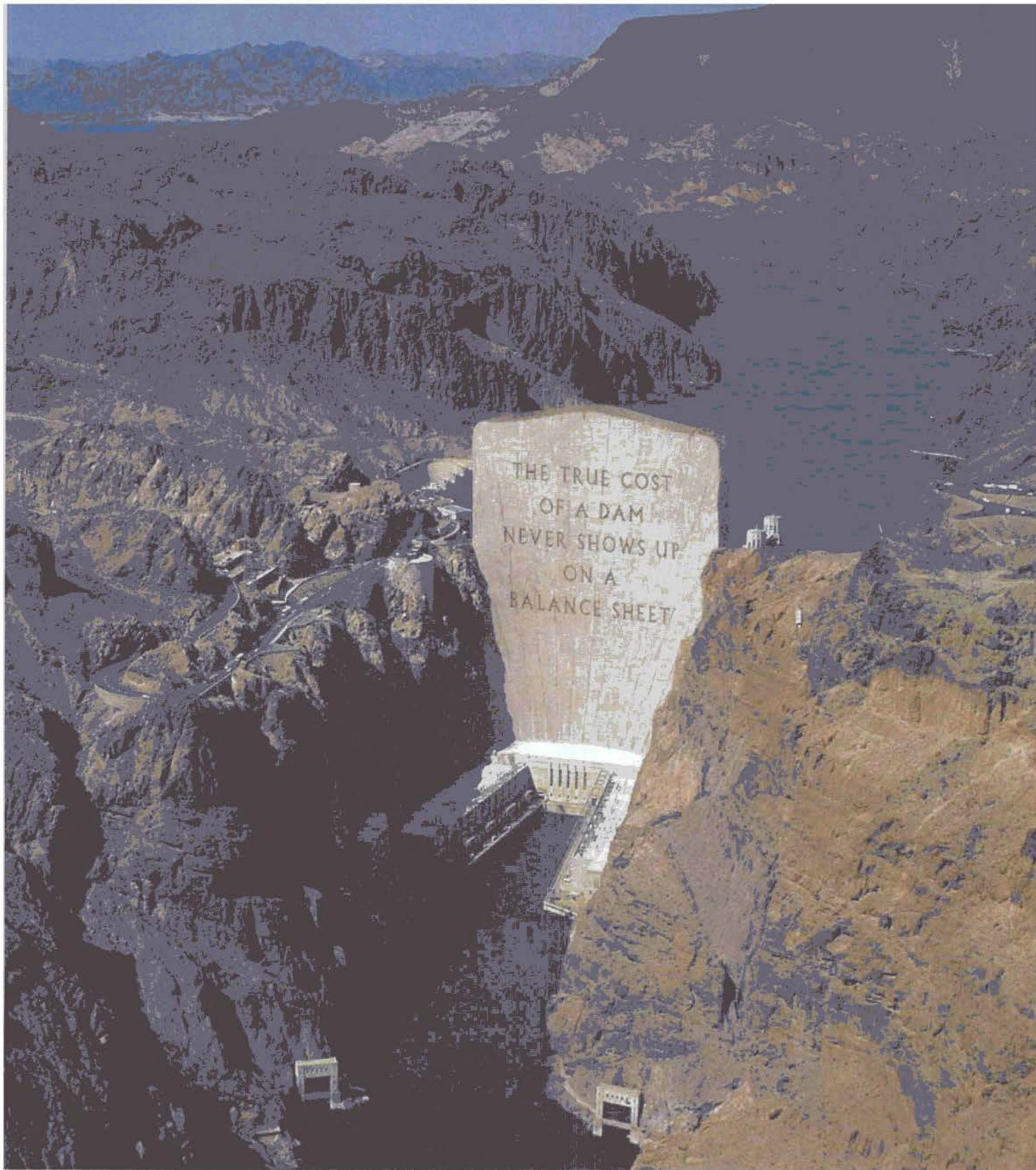
Dr. Jeffrey M. Seisler is a founding executive director of the European Natural Gas Vehicle Association, based in the Netherlands. Prior to that he was the first executive director of the Natural Gas Vehicle Coalition in Washington, D.C., from its inception in 1988 until July 1994. Dr. Seisler is one of the leading advocates worldwide of NGVs, having served two terms as the president of the International Association for NGVs, also helping to begin two other regional NGV associations in the Asia-Pacific and Latin American regions. He has published widely.

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ON PAPER, dams may seem like a good idea. The truth is dams kill a river's ecosystem by cutting off its flow. But that's after the locals have lost their homes. Spare a thought too, for those downstream of the dam where there's less water to irrigate crops and catch fish. Then there are the green-house gas emissions due to vegetation rotting in the reservoir. Not good. But let's talk money. The projected financial cost is rarely

accurate. The World Commission on Dams found that, on average, large dams go over budget by 56%. They are high-risk investments. So how can you navigate this moral and economic minefield? By getting hold of WWF's Investor's Guide to Dams. It outlines good dam practice and alternatives for supplying water and energy. That way you can go into any project with your eyes wide open. DAMS. THINK AGAIN.



# Biodiversity and Agriculture



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The Cartagena Protocol on Biosafety:  
From adoption to implementation  
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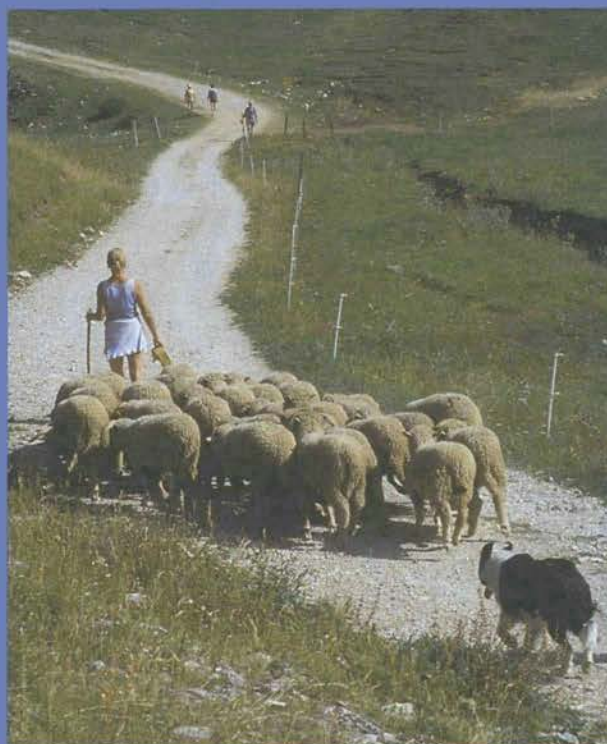
Promoting investment in biodiversity  
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Growing trends in Fair Trade  
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Community scouts promote conservation  
and livelihood security in the Mara  
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Some forest products are subject to certification and a purchasing policy, the latter a version of fair trade. We explore the Fair Trade movement, focusing on developments in the US and Pacific Rim countries. Biodiversity, and the attempts to preserve it, are in the news following the Global Biodiversity Forum in February. Articles describe a scheme in Africa that involves indigenous people in managing wildlife; and in Central Europe, a scheme to place biodiversity within investment strategies. The genesis of the Cartagena Protocol is explained, and the writer outlines in detail the steps and challenges that confront implementation of such an international Protocol.



# Routes to sustainable forest products

**Mark O'Brien**, UK Timber Trade Federation, London, UK

**Certification is the best-known sustainable timber initiative, but not the only one. In its absence, the Timber Trade Federation's Purchasing Policy offers an alternative way of sourcing sustainable forest products.**

The timber industry in the UK has long been recognised as having an important role to play in the economy – within the construction industry, furniture manufacturing and in the DIY sector. In common with the rest of UK business, the timber industry is faced with the challenge of operating on an increasingly sustainable basis.

Timber consumption in the UK is big business, dominated by softwood consumption, which in 2001 amounted to £1.1 billion compared to £206 million for hardwood and £307 million for plywood imports. The UK is the third largest importer of softwood in the world. A total of 16 million cubic metres of timber and panel products were traded in 2001, made up from imports and increasing quantities of softwood and panel products produced in the UK.

## A big market

Most of the timber entering the UK market comes from just four countries: Sweden, Latvia, Finland and the USA. Between them they accounted for 62% of the timber imports in 2002. Much smaller quantities of timber come from a range of diverse sources ranging from Austria to Zaire.

The UK then is a considerable marketplace for timber and timber products and the legality and sustainability of timber supplies is of crucial importance to the importing sector. Over the last decade or so a variety of environmental NGOs, academic institutions and governments have drawn attention to a series of environmental problems from climate change to the pollution of seas and rivers.

Business too has become much more environmentally aware, responding to pressure from consumers and investors who expect business to be conducted in a way that minimises damage to the environment. Whether it is using recycled paper or operating an ethical investment policy, business is facing a series of environmental challenges that would have been unthinkable fifteen years ago.

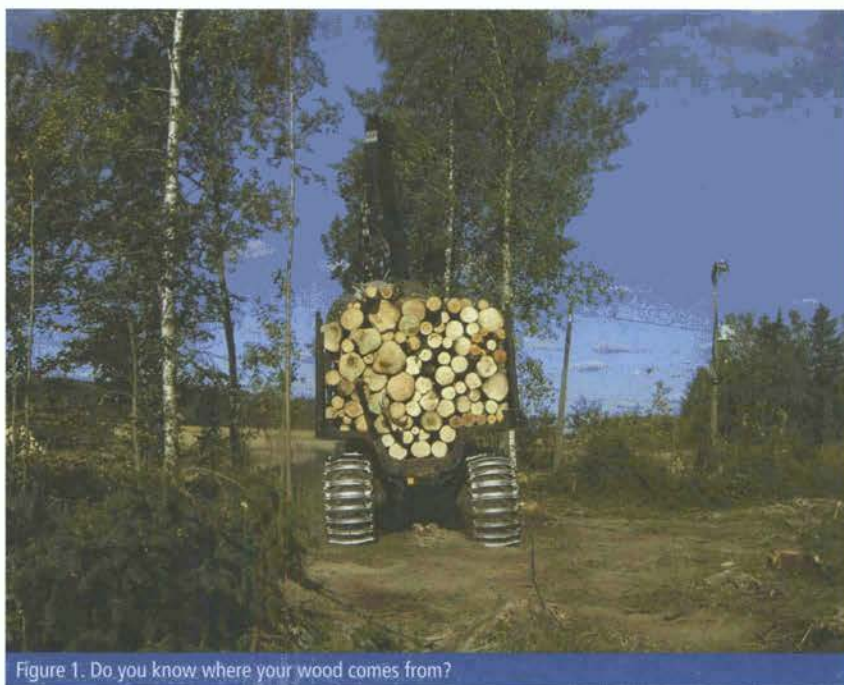


Figure 1. Do you know where your wood comes from?

As part of this increased environmental sensitivity, the UK timber-importing sector is determined to play its part in promoting the legal and sustainable sourcing of timber, and has been at the forefront of initiatives to achieve this goal.

A well-written and managed policy shows a far greater commitment to the environment than just sourcing certified timber, as it includes commitments on employee training and continuous improvement

## Sustainability initiatives

### Certification

One of the most straightforward ways to ensure legality is to source timber from a certified forest preferably with accompanying chain of custody certification. There are approximately forty certification systems developing across the world all at different stages of development but unfortunately only

about one per cent of the world's traded timber is currently certified. Fortunately for the UK, all its major supplier countries have credible and well-established certification systems such as FSC, PEFC and SFI. Timber obtained from such certified sources will have come from forests managed according to clear and sustainable criteria.

Timber Trade Federation (TTF) Members are also committed to an Environmental Code of Practice, which provides a generic set of commitments to ensure that member companies are taking all possible steps to minimise their impact on the environment and to source their timber and timber products responsibly. Members are committed to sourcing their timber from legal and well-managed forests and unreservedly condemn illegal logging practices and are committed to working with suppliers and other stakeholders towards their complete elimination.

Members also recognise that the independent certification of forests is the most useful tool in providing assurances that the timber they deal in comes from legal and well-managed forests. But if you cannot source





Figure 2. Finland has an excellent record in sustainable forest management.

independently certified timber, what steps can you take to ensure that you are trading responsibly?

### Purchasing policy

An alternative to certification is to deal with a company signed up to the Timber Trade Federation's Environmental Timber Purchasing policy (ETPP). This is a framework within which timber using or timber trading companies can work to improve their environmental performance. The ETPP was first formulated in 1991, and by 2002 had 65 signatories that including major importers, agents and manufacturers. The ETPP commits each company to gather information about their timber supplies, and uses this information as part of the purchasing decision. It is a useful and valuable alternative way of establishing legality and sustainability of supply in the absence of certification.

The ETPP begins with a written environmental policy specifically for timber procurement. This is a management level document that brings timber procurement into the heart of decision-making and includes commitments on management structure, certification and continuous improvement. Each company produces an individual policy appropriate to their business, and sets objectives and targets within each policy area.

An important part of the policy is supplier evaluation. This can be carried out by site visits, letters or questionnaires. The findings form the

basis on which ETPP signatories grade their suppliers. For example, suppliers may achieve Grade A status by having their own timber procurement policy and being able to supply 100% certified material. Importantly, an ETPP signatory must be committed to dropping low-graded suppliers. Timber products, under the auspices of the ETPP, should be traced at least to their mill of origin, when confirmation should be sought that each supplier has their own policies to ensure that the timber comes from legal and well-managed sources.

### The Federation's Conduct Assurance Scheme, its Environmental Timber Purchasing Policy, and its support for certification all offer ways forward in the effort to eliminate the illegal trade in timber

Currently, to assess the policy, an ETPP signatory completes a questionnaire and written report to identify whether the policy is being correctly implemented and objectives and targets are being met. The results in 2002 showed that 97% of policyholders had obtained information on forest management practices with 86% visiting suppliers directly. Furthermore there was a significant increase in timber sourced from independently certified forests.

At the moment the ETPP is being radically reviewed to streamline its

operation and to subject it to some form of third party scrutiny. The aim is to make it more robust and credible. Another major goal of the review process is to make it compatible with the development of the UK Government's developing timber procurement policy, which could radically alter the procurement environment in the public sector.

The review of the policy will format it to follow closely the guidelines of an Environmental Management System accompanied by an independent auditing structure. For those companies with an existing EMS, it will fit into their existing structure and allow simultaneous auditing.

A well-written and managed policy shows a far greater commitment to the environment than just sourcing certified timber, as it includes commitments on employee training and continuous improvement. Continuous improvement is an essential part of any policy, as currently there is insufficient certified material available to satisfy the UK market requirements for all timber and timber products.

A well-implemented Environmental Timber Purchasing Policy shows management commitment to evaluate timber suppliers on a regular basis and then to use this evaluation to determine the best timber supplies to customers. It looks to improve all timber supplies and not just those that are certified. A company may source certified material but show no commitment to improving its supply chain management



It introduces environmental issues at management level and requires a commitment to continuous improvement in the environmental performance of timber procurement activities.

### Role of UK government

The UK Government itself is committed to sourcing legal and sustainable timber following a commitment made by Tony Blair at the G8 meeting in 2000. The TTF has been closely involved at both ministerial and official level with the Government in helping it to formulate a procurement regime, which will deliver this commitment without imposing unrealistic goals on the UK trade. Procurement officials are currently required to actively seek legal and sustainable timber supplies. Contracts will be awarded based on a sliding scale. Any trader that satisfies the higher category will be given priority. The policy will also require some evidence relating to the timber source, in the form of third party certification, a suppliers' declaration or other independent verification.

The UK Government as part of the Forest Law Enforcement and Governance process has signed a Memorandum of Understanding with the Indonesian Government to agree a package of measures to tackle illegal logging in that country. The problem of illegal logging and the resultant deforestation are now fairly well documented, and the current Indonesian Government is committed to ending the illegal trade and reversing the trend towards deforestation. The primary responsibility for solving this problem lies with the Indonesian authorities. They are trying to enforce their forest laws and regulations in spite of a culture of corruption, widespread poverty and a highly decentralised political system.

What role does the UK trade have in helping to solve this problem? First, the relatively small part that Indonesia plays in the UK marketplace must be made clear. Only 4% of the Indonesian yield is imported into the UK, which amounts to only 0.83% of the timber imported into the UK. The UK then is an extremely small part of the Indonesian timber trade, which exports 75% of its yield to Japan and China.

In spite of this the UK trade has fully cooperated with the UK and Indonesian Governments and several meetings have been held with delegations from the respective

Governments and members of the trade. This culminated in a major meeting held in London on 1 July 2003 to launch a new initiative on Indonesia, which brought together with timber trade representatives a range of stakeholders including the UK's International Development Department, the Indonesian Forestry Ministry, the Environmental Investigation Agency, the Tropical Forest Trust and Greenpeace.

### The UK timber trade has a vested interest in continuing to promote legal and sustainable forest management in all its supplier countries

The meeting resulted in a ten-point action plan. The immediate objective of the plan is to secure third party audited legal timber for the UK market with the ultimate objective of sourcing certified sustainable timber. The aim is to identify mills that are most likely to reach sustainability and which in the short term can supply the UK market with legal material.

### Favouring the best mills

The approach preferred by the UK timber trade is to purchase from mills that can effectively separate streams of known, legal timber from unknown and potentially illegal timber, through certified chain of custody systems, and to work closely with those mills to eventually eliminate all timber of unknown or dubious origin from their operation. The Tropical Forest Trust will be conducting a study into a number of mills to see if they qualify for this initiative. This is an example of a small,

but none the less important, step-wise contribution that the UK trade is making to tackle the problems of the legal and sustainable sourcing of timber in Indonesia.

UK trade has played its part in recognising that there is a problem of illegal logging that undermines progress towards sustainable forest management. It needs to be recognised that it is a problem that does not affect the entire trade but is strongly associated with particular countries. It also has to be recognised that the Federation's Conduct Assurance Scheme, its Environmental Timber Purchasing Policy, and its support for certification all offer ways forward in the effort to eliminate the illegal trade in timber. The TTF has also collaborated with the UK Government on the development of its public sector procurement policy and has worked closely with it on issues such as Indonesia.

The UK timber trade, through the work of the TTF, has shown itself to be socially responsible. Its work on the development of its Conduct Assurance Scheme has provoked interest in other parts of Europe and Japan, where similar initiatives are being actively considered. The UK timber trade has a vested interest in continuing to promote legal and sustainable forest management in all its supplier countries and will continue to exercise whatever market pressure it can bring to bear in achieving these objectives.

#### ABOUT THE ORGANISATION

The Timber Trade Federation represents the timber industry's views to central and local government, the devolved political institutions and the European Commission. Its mission is to help create and sustain the conditions in which its members can prosper. The Federation provides its Members with information and services on technical matters, contracts, statistics and standards, as well as legal and environmental advice. Through its Forests Forever campaign, the Federation promotes the environmental advantages of timber and timber products.

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# The Cartagena Protocol on Biosafety: From adoption to implementation

**Erie Tamale**, Secretariat of the Convention on Biological Diversity, Quebec, Canada

**11 September 2003 marked the entry into force of the Cartagena Protocol on Biosafety. The Protocol governs the international transfer, handling and use of living modified organisms; so-called GMOs. The negotiations were long and complicated, and now the challenge is to implement effectively the Protocol.**

After more than five years of intense negotiations, member countries of the Convention on Biological Diversity (CBD) finally adopted, during the early hours of 29 January 2000, the first supplementary agreement under the Convention, known as the Cartagena Protocol on Biosafety. The objective of the Protocol is to contribute to ensuring an adequate level of safety in the transfer, handling and use of living modified organisms (LMOs), popularly referred to as genetically modified organisms or GMOs which may have adverse effects on biological diversity and human health. The Protocol establishes a harmonised set of rules and procedures for regulating the movements of GMOs from one country to another. Among other things, it establishes the Advance Informed Agreement (AIA) procedure. This applies when a particular GMO is to be exported to a country for the first time (the first intentional trans-boundary movement). The exporter is required to provide to the importer prior written notification containing certain minimum information to enable the latter to take a decision to approve or to prohibit the GMO import.[1]

The Protocol was opened for signature from 15 May 2000 to 4 June 2001, during which it received 103 signatures. However in order to come into force, in other words to become a legally binding international treaty, it required at least fifty instruments of ratification or accession by States that are Parties to CBD. On 13 June 2003, the Republic of Palau became the 50th State to ratify the Protocol, which triggered the countdown to its entry into force ninety days later, on 11 September 2003. As of 28 January 2004, a total of 81 States and one regional economic integration organisation, the European Community, had ratified or acceded to the Protocol.

The entry into force of the Protocol was a significant turning point, marking the end of the interim phase after adoption and the beginning of a long-term process of implementation. Undoubtedly this is the most critical phase that will determine the ultimate success or failure of the Protocol. It presents a new challenge. Parties have to initiate concrete measures to ensure effective translation of the Protocol's provisions and objective into a practical reality.

## Establishment of appropriate and effective national institutions is central to the successful implementation of the Protocol at the national level

This article outlines some of the key requirements under the Protocol and describes some practical measures that are central to its effective implementation. The objective of the article is to stimulate further exchange of ideas on alternative practical implementation measures and to foster critical reflection on the issues involved.

### Initial steps: Designation of national institutions

The first steps usually determine the success or failure of any process. The Protocol specifies two important administrative requirements that Parties should have fulfilled by the time it enters force for them. First, each Party is required to designate and communicate to the Secretariat the names and address of one National Focal Point to liaise with the Secretariat, and one or more Competent National Authorities (CNAs) to perform the administrative functions required under the Protocol (Article 19). Each Party is also required to identify and make available to the

Biosafety Clearing-House (BCH) details of a point of contact for the purpose of receiving notifications concerning any occurrence that leads or may lead to unintentional trans-boundary movement of an LMO (Article 17).

Establishment of appropriate and effective national institutions, especially the CNA, is central to the successful implementation of the Protocol at the national level. The CNA is responsible for acting on behalf of the Party with respect to the Protocol. Its functions encompass administration of the AIA procedure, including acknowledging receipt and processing of notifications, review of the risk assessments, communicating final decisions regarding importation or release of GMOs to the notifier and the BCH, and making available to the BCH information required under the Protocol. The CNA may also facilitate coordination and exchange of information among other relevant national agencies, undertake public consultations during the decision-making process and inform the public how to access the BCH.

In the light of those important functions, Parties ought to give careful consideration in choosing institutions to be designated as CNAs. Among other criteria, they need to consider the structure and location of those institutions within government hierarchy and their institutional capacity to discharge the above functions. CNAs should have qualified and efficient staff with clearly defined roles and responsibilities, effective administrative structures, and suitable office facilities and equipment including good telecommunication and Internet access. In addition, CNAs should have the authority and capacity to make decisions on behalf of the Party.



## Beyond deliberation: Action

Besides the above-mentioned initial administrative steps, there are a number of other practical actions that Parties are required to undertake to implement the Protocol. Among these, the first critical step is for each Party to take appropriate legal, administrative and other measures, including development of national biosafety frameworks (NBFs), to facilitate the implementation of the Protocol. Those measures are very critical in providing the necessary foundation for future action. Examples of specific actions that Parties are obliged to undertake are highlighted in Box 1. A detailed checklist of all the requirements under the Protocol, which was compiled by the Intergovernmental Committee for the Cartagena Protocol on Biosafety (ICCP), can be accessed from the Convention web site, [www.biodiv.org](http://www.biodiv.org).

The success of the Protocol will depend on the effectiveness of the national implementation regimes established by the different Parties. In this regard, due attention must be given to the process of developing national biosafety frameworks which is currently on-going in more than 120 countries as part of a global project funded by the Global Environment Facility (GEF) and implemented through the United Nations Environment Programme (UNEP). Parties should establish implementation regimes that are comprehensive, workable, adaptive and forward-looking. [2]

Without doubt, the scope and nature of national implementation regimes will differ from Party to Party due to various factors. However, it is advisable for all Parties to consider establishing regulatory regimes comprising the following components:

- A policy on biosafety;
- Biosafety legislation (an Act or Decree, complemented with implementing technical regulations and guidelines);
- An administrative system for handling notifications or requests for permits to import or release of GMOs;
- A decision-making system (including reviewing risk assessments and undertaking internal consultations);
- A mechanism for involving relevant stakeholders and the public in decision-making and the implementation process;
- A mechanism for inspections and monitoring of environmental release and effects of GMOs;

- A system for follow up and enforcement to ensure compliance; and
- Public information systems.

The impetus provided by the GEF-funded NBF development and implementation projects should be sustained through adequate follow-up by the relevant government bodies. In particular, national parliaments or other relevant authorities should enact the biosafety legislation and establish appropriate institutions in a timely manner. In addition, they should work towards building local capacities to perform the necessary administrative functions, conduct or review risk assessments and the capacity to enforce the national biosafety regulatory frameworks. The achievement of these and other implementation measures could also be bolstered through regional collaboration and support by international organisations as well as through the private sector. Support to Parties in the implementation of the Protocol, should include assistance in establishing efficient CNAs and in developing and enforcing national regulatory frameworks.

## Effective implementation

There are a number of important processes and measures that are critical to ensuring the effective implementation of the Protocol. These include: information sharing (including through the Biosafety Clearing-House), capacity-building, public awareness and participation, mobilisation of the necessary financial and other resources, and international cooperation. These measures are provided for in different provisions of the Protocol. The following sections briefly describe each of these measures.

Requisites for effective implementation include information sharing, capacity-building, public awareness and participation, financial and other resources, and international cooperation

### Information sharing: Biosafety Clearing-House

Information sharing is central to the implementation of the Protocol. Parties

### Box 1: Examples of key obligations under the Protocol

Among other obligations, each Party is required to:

- Make available to the BCH information required under the Protocol, including: copies of existing national laws; bilateral, regional and multilateral agreements and arrangements; risk assessment summaries; final decisions regarding importation or release of GMOs; reports on national implementation of the Protocol; point of contact for receiving notifications concerning any occurrence of unintentional transboundary movement of an LMO; and information concerning cases of illegal transboundary movements of GMOs.
- Establish or maintain a procedure for the notification of exports, and for taking decision on imports, of GMOs destined for intentional introduction into the environment of the Party of import.
- Ensure that any domestic regulatory framework used in place of the decision procedure of the Protocol's AIA is consistent with the Protocol.
- Ensure that risk assessments done for decisions taken under the AIA procedure are carried out in a scientifically sound manner and taking into account recognized risk assessment techniques.
- Establish and maintain appropriate mechanisms, measures and strategies to regulate, manage and control risks identified in the risk assessments and to prevent unintentional transboundary movements of GMOs.
- Take measures to require that GMOs being moved from one country to another are accompanied by relevant documentation containing information on their identification, as appropriate, contact points, and other facts relevant to their safe handling, storage, transport and use.
- Establish or maintain procedures to protect confidential information submitted under the procedures of the Protocol.



need to have access to relevant information in order to take appropriate decisions and actions. The Biosafety Clearing-House (BCH) was established to facilitate exchange of information and to assist Parties to implement the Protocol. It provides a central repository and gateway to key information required under the Protocol (see Box 2). In this regard, ensuring universal access to the BCH is imperative for the effective implementation of the Protocol. All Parties need to have in place the necessary capacity – including infrastructure, good Internet connectivity and trained personnel – to access, register and retrieve information in the BCH easily and efficiently. As well, Parties need to develop national systems for collecting, managing and making available relevant information to the BCH.

#### Building capacity

It goes without saying that lacking the necessary capacity Parties will not be able to implement the Protocol. The Protocol requires Parties to cooperate in strengthening the human resources and

institutional capacities in biosafety. Some steps have been taken so far in this regard. For example, the Intergovernmental Committee for the Cartagena Protocol on Biosafety (ICCP) developed in 2001 a comprehensive Action Plan for building capacities along with a set of indicators to monitor its implementation and a Coordination Mechanism to promote partnerships, complementarities and synergies between various capacity building

Developed country Parties and donor agencies should consider increasing their assistance in support of the Protocol's implementation, recognising the predicament facing most developing countries

initiatives. As well, a roster of experts has been established to provide advice and other support to eligible Parties. In addition, there are at least 68 on-going capacity-building initiatives registered in the BCH projects database. Nevertheless, a lot remains to be done to address the gaps and unmet capacity needs. Countries need to assess their needs and

priorities, develop action plans and based on these develop focused capacity-building projects or programmes, with clear targets and indicators of success. In implementing those activities, it is essential to adopt a systematic, stepwise and target-oriented approach. It is also important to coordinate and synergise the new initiatives with relevant existing activities and to ensure effective collaboration with other Parties and relevant organisation, including the private sector.

#### Mobilising resources

Effective implementation of the Protocol will require predictable and sustainable levels of funding and technical support. Most developing countries are currently struggling with over-stretched budgets to cope with many competing national priorities, in particular poverty eradication. Without external financial assistance, many of them will find it difficult to fully implement their commitments under the Protocol. Unfortunately, the demand for overseas development assistance (ODA) has increased tremendously in recent years with the emergence of several other international critical issues such as the AIDS pandemic and humanitarian crises. Clearly, if the Protocol is to be effectively implemented, there is a need to identify and pursue innovative ways of mobilising additional resources to supplement the traditional sources of funding. Parties should explore and leverage, within a coherent resource mobilisation strategy, new additional resources through a wide range of means, including fund-raising schemes, voluntary contributions from non-governmental organisations and the private sector as well as foreign investments, joint ventures, technology transfer and other modalities. At the same time, Parties should ensure that existing resources are allocated effectively and utilised more efficiently.

It is also very important for developed country Parties and donor agencies to consider increasing their assistance in support of the Protocol's implementation, recognising the predicament facing most developing countries. They should also endeavour to coordinate, synergise and streamline their funding policies, procedures and priorities in order to ensure consistent and complementary support to developing countries. Such support should be based on needs and priorities of the recipient countries (i.e. demand-driven).

#### Box 2: The Biosafety Clearing-House

Article 20 of the Protocol establishes the Biosafety Clearing-House to facilitate exchange of information and to assist Parties to implement the Protocol. Some people have described the BCH as the central vehicle for implementing the Protocol because without it the Protocol would not function. Lacking access to the BCH, Parties would not be able to fulfill their obligations under certain provisions of the Protocol. For example, the BCH is the only mechanism by which Parties would be informed about final decisions taken by Parties regarding domestic use – including placing on the market – of an LMO intended for direct use as food or feed or for processing (LMO-FFP). Specific information must also be made available through the BCH including: national biosafety laws; existing bilateral or multilateral agreements; risk assessment summaries; final decisions regarding the importation or release of GMOs; and any review and change of such decisions on the basis of new scientific information.

Other information which must be made available to the BCH includes: (a) Copies of national laws and guidelines applicable to the import of LMOs-FFP (Article 11.5); (b) Information from a Party of import regarding its simplified procedures (Art. 13); (c) A decision on whether that Party's domestic regulations shall apply with respect to specific imports to it (Art. 14.4); (d) Notification of an occurrence of an LMO release that leads, or may lead, to an unintentional transboundary movement (Art. 17.1); (e) point of contact to be notified in cases of accidental LMO releases (Art. 17.2); and (f) Information concerning cases of illegal transboundary movements (Art. 25.3).

Further information about the BCH is available at:

<http://www.biodiv.org/bch/history.asp>.

The pilot phase can be accessed at:

<http://bch.biodiv.org/Pilot/Home.aspx>



### Promoting awareness

Public awareness, education and participation, including access to information are also crucial for the effective implementation of the Protocol. Before they can effectively contribute to its implementation, people, including relevant government officials, must have clear understanding of the Protocol's provisions as well as the scope and requirements of national regimes. Likewise, people need to be sensitised, and to have ready access to relevant accurate information about specific GMOs. This would enable them to make informed choices and to gain confidence and knowledge with regard to the safe transfer, handling and use of GMOs. [3] It is also imperative to ensure effective public participation in decision-making and other Protocol implementation processes. Awareness and education programmes on the Protocol and the national implementation measures should be organised for various stakeholder groups using all relevant media and forums. The Internet, which is increasingly being used as a communication and information dissemination tool, should be maximised as well.

### International cooperation

Cooperation between Parties and with other stakeholders, including civil society and the private sector, is another key prerequisite for the effective implementation of the Protocol. This is highlighted in a number of provisions in the Protocol. It is essential for Parties to work together and to support each other in undertaking various implementation measures, including: capacity-building, public education and awareness, information-sharing, risk assessment and risk management. Cooperation is vital in fostering concerted global action, in building linkages and partnerships and in leveraging resources for the implementation of the Protocol. There is a need to promote closer collaboration and networking among all Parties and other key actors at the international, regional/sub-regional and national levels.

### Conclusion

The transition from adoption to implementation of the Protocol is without doubt a daunting challenge. It calls for a strong commitment by all Parties and for close cooperation and informed participation of all relevant

stakeholders. It also requires adoption of pragmatic, systematic and forward-looking implementation measures, with clear indicators of success. The Conference of the Parties serving as the meeting of the Parties to the Protocol (COP-MOP) should play a central role in this regard. COP-MOP is responsible for keeping under regular review the

## Cooperation is vital in fostering concerted global action, in building linkages and partnerships and in leveraging resources for the implementation of the Protocol

implementation of the Protocol and for making decisions necessary to promote its effective implementation. In particular, the first meeting of the COP-MOP from 23–27 February 2004 in Kuala Lumpur, Malaysia, should provide appropriate initial direction and momentum for future action.

As Parties embark on the long-term process of implementing the Protocol, they need to reflect on their obligations, consider the different issues involved and adopt concrete legal, administrative and other measures to implement those obligations. This article has attempted to highlight some of the key requirements under the Protocol that Parties need to implement immediately and described key elements and measures – information sharing, public awareness and participation, capacity building, resource mobilisation and international cooperation – that are central to the

effective implementation of the Protocol. [4] Implementation of the Protocol will remain an evolving process. We will need to learn, exchange lessons, and adjust our strategies along the way.

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*The views expressed in this article are those of the author and do not represent in any way those of the Secretariat or of the Parties to the Convention on Biological Diversity.*

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# Promoting investment in biodiversity

Peter Nowicki, European Centre for Nature Conservation, The Netherlands

A pilot fund for investment in biodiversity in central and eastern Europe could be in operation in 2004. There are many challenges in defining and establishing such a fund, but the Biodiversity Resourcing Initiative has wide and growing support. It is now looking to engage the private sector.

The concern for sustainable development embraces the preservation of natural resources and biodiversity. The enlargement of the European Union has turned attention to the considerable wealth of biodiversity that exists in Eastern Europe, the Caucasus and Central Asia (EECCA).

The role of the finance sector in promoting sustainable development was explicitly encouraged in the declaration that came out of the Fourth Environment for Europe Ministerial Conference in Aarhus in 1999. Recently, the European Centre for Nature Conservation (ECNC) has been looking into two areas where the aims of the Aarhus declaration could be put into action: first, through the development of the capacity of financial institutions to recognise biodiversity issues in investments, and second, through the provision of financial resources to encourage the preservation of biodiversity through sustainable investment. And ECNC has participated in a coalition, the European Biodiversity Resourcing Initiative.

## Private sector profits

The private financial sector needs to make profits on its investments. Socially responsible investment (SRI) requires institutions to confront risks that are both financial and technical in nature. Whereas the public sector may want to get the private sector involved in taking responsibility for biodiversity for the good of all, it is the specific interests of the private sector which ultimately have to be taken into account – because no manager can allow his enterprise to operate at a loss without ultimately going bankrupt. So, investment that has a biodiversity-relevant component has to be on the whole profitable, and profitable enough to provide a rate of return that is acceptable to the bank or company behind the investment.

## Challenges and difficulties

The aim of making finance available for a 'biodiversity market' requires that a market be defined, that financial

instruments be designed, and that those instruments be taken up and used by the financial sector.

### Defining a market

The first challenge is to develop market demand for finance that is explicitly based on biodiversity-related objectives. The Task Force members (see box below) have been trying to define a market area proper to biodiversity. The challenge is to identify economic value in public goods. These can be categorised as collective public property not subject to private property rights. Markets for goods such as forest products, eco-tourism, organic agriculture and certified timber, mark

out the conceptual boundaries here.

### Return on investment

The second challenge relates to the rate of return on investment. Although an individual can decide to place money in an activity that may not provide the highest possible rate of return, a financial institution that is accountable to third-party providers of capital may not. The only exception to this is when the public purse assumes part of the responsibility incurred by the financial institution, thus reducing the need for the activity to return a profit.

Most people would assume that the biodiversity market is not – or is only marginally – profitable. Perhaps this is

### European Biodiversity Resourcing Initiative

This is an informal coalition of European governments, financial institutions and NGOs, established to encourage dialogue with the private sector so as to develop commitments to place biodiversity within investment strategies – either to use resources sustainably that have an influence on biodiversity or to mitigate negative influence upon it.

The coalition meets in a forum known as the European Task Force on Banking, Business and Biodiversity, for which ECNC assures the secretariat, with the financial support of the Swiss Agency for Environment, Forestry and Landscapes.

Preparation of a biodiversity finance facility started in 2001, with the first meeting under the European Biodiversity Resourcing Initiative organised by the Swiss Agency for Environment and ECNC. Since then support has widened for the principle of supporting biodiversity through financial investments, and the Task Force now contains representation from a variety of governmental, financial and public-interest organisations.

Development of a 'biodiversity market' should prove feasible; if not, then the exercise conducted so far and into 2004 will clearly make the point that care for public goods cannot be the responsibility of the private sector. The expectation is that the contrary will prove true, and that the financial community will be able to assume a lead in preserving and enhancing the European natural heritage, mobilising both the entrepreneurial acumen and the conservation experience provided by business and public-interest organisations, governmental and non-governmental.

The Task Force includes representation from the following institutions: Council of Europe, Council of Europe Development Bank, Crédit Suisse, Deutsche Bank, English Nature, European Bank for Reconstruction and Development, European Centre for Nature Conservation, European Commission (Environment Directorate-General, Biodiversity Unit), European Investment Bank, Euronatur, Fauna and Flora International, Fieldfare International Ecological Development plc, International Finance Corporation, IUCN (World Conservation Union), Joint Secretariat PEBLDS (Pan-European Biological and Landscape Diversity Strategy), Ministry of Agriculture, Nature and Food Quality (The Netherlands), Ministry of Environment (Norway), Ministry of Environment and Water (Hungary), Organisation for Economic Cooperation and Development, Project Preparation Committee Secretariat, Rabobank Nederland, Regional Environment Centre, State Secretariat for Economic Affairs (Switzerland), Swiss Agency for Environment, Forests and Landscape, United Nations Development Programme, United Nations Environment Programme – Finance Initiatives, World Bank, World Wildlife Fund – Russian Programme Office.



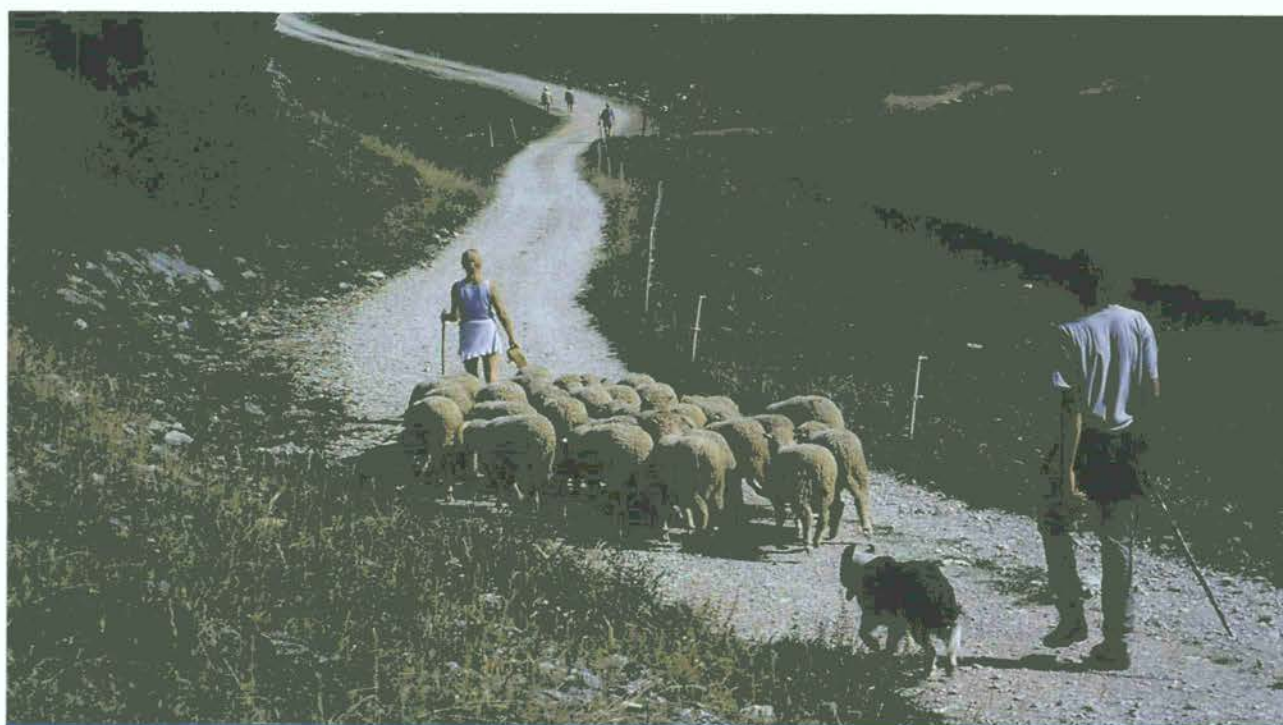


Photo: Saxifraga Foundation/Jan van der Straaten.

Figure 1. Preserving biodiversity means providing for human livelihoods that have an influence on the landscape.

not true, but the demonstration has yet to be made conclusively.

#### Risk of public funds

The third difficulty relates to publicly subsidised financial support for an activity. This may have two counter-productive effects. The first is the moral hazard for the financial sector itself: if there is a guarantee on the resources that must ultimately be returned to the providers of capital, then there is a risk that banks will not practice due diligence when examining projects that can benefit from such a guarantee. The second is the risk of encouraging unsustainable business plans by those requesting financial support for their investments. If there is no fear of the consequences of not being able to meet financial obligations – for example when it is possible to shift the financial onus for reimbursement to the public purse – then entrepreneurs may too easily make unrealistic assumptions.

Socially responsible entrepreneurial activity is of great importance to the preservation of biodiversity, and it is urgently required in the rapidly developing economies found within EECCA. The Task Force is conscious of the precursory and catalytic value of the development of a financial instrument that specifically promotes a biodiversity market while dealing with the three difficulties outlined. Even before addressing the size of the capitalisation that would make such an instrument credible – very roughly some tens of millions of euros – the first priority is to verify that a biodiversity market can be a

reality. Relations with entrepreneurs who would qualify as operators within this market area must also be developed; such a communication process would also be an opportunity to get feedback on the elements of a proposed business plan.

#### Study for a finance facility

In the light of the above, the Task Force has mandated that a study be carried out to design a Biodiversity Finance Facility composed of three parts: a technical assistance facility that would advertise the existence of an investment facility and screen investment proposals for their biodiversity and financial eligibility; a project development unit to assist project promoters in upgrading eligibility proposals to the standards acceptable to the finance facility; and a finance facility that would complete deals and monitor how investments mature, eventually sharing the project

#### Support has widened for the principle of supporting biodiversity through financial investments

implementation support function with the project development unit.

Various screening actions will occur along the way, in particular to determine if other existing funding possibilities are more appropriate or cost effective. The implementation of the biodiversity finance facility may take place in stages, beginning with the

technical assistance component, and within two or three years incorporating an internal finance capacity. It is possible that funds could be made available on a pilot basis to test out the difficulties outlined above, establish whether a biodiversity market exists, and if so, establish a project pipeline.

#### Possibilities considered

A finance facility is not dependent on just one source for capitalisation, so the objective will be to involve both European and private commercial banks in the new financial instrument. It is not likely that the facility will operate as a source for venture capital, because the required rate of return to cover the risk profile of candidate investments of a venture capital sort would be too high. It has been noted by the Task Force that equity on a preference share basis should be considered. This applies particularly if NGOs are to be eligible for investment support, because their capacity to secure capital may be limited.

Another possibility being examined by the Task Force is to promote the principle of 'green' loans that are currently available in The Netherlands. These have a reduced interest rate, and capital can be made available through a bank because the providers of capital benefit from reduced taxation of dividends from the fund. They may also benefit from a reward in kind, depending on the particular investment product. In any case, the facility will have to operate on the basis that the risk/reward ratio of





Photo: Saxifraga Foundation/Jan van der Straaten.

Figure 2. Visitors come from far and wide to enjoy biodiversity.

investments will be such that a lower rate of interest will be acceptable to the participating banks, in exchange for a relatively high degree of security with regard to the investments in the portfolio of the finance facility manager.

One of the reasons that the technical assistance function may be a separate part in the composition of biodiversity investment support is that insuring security requires effort upfront to screen and upgrade investment proposals. If, as is likely, micro-finance is the required characteristic of the financial instrument, this involves more managerial support than can be carried by the financial facility manager in an efficient and cost effective way. This technical support can theoretically be underwritten by one of the existing major financial instruments. Interaction between the clearing-house mechanism and the potential market, as is currently planned, would not be feasible without external funding.

Developing a new biodiversity market may correspond to a clear public policy objective, but the commercial logic is not yet sufficiently

grounded in entrepreneurial ambition or in support from financial circles.

### Timeframe for development

The Task Force has clear objectives for a timeframe to get the development of a biodiversity market underway. The design of the modules of the biodiversity finance facility should be carried out in the first half of 2004.

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By the end of June the decision to go ahead should be made, and the basic option of where to obtain financing for the technical assistance facility component clarified. It is also likely that the type of financial support – equity or debt – for biodiversity investments would be clear, as well as the formula through which finance would be made

available – for example green loans. It should be clear which financial institutions might subscribe, as well as where the different components of the combined facility would be housed – an NGO might be the appropriate location for the technical assistance component. And a separate finance facility manager might be contracted through one of the principal providers of capital – a European bank for example.

It should also be clear whether the technical assistance facility and the finance facility can go into operation in parallel, or if there should be a step-wise implementation of the finance facility, perhaps passing through an experimental period with a specific form of capitalisation, for example a revolving or sinking fund established by a grant from a European political institution. In any case, operation of some sort should begin by the end of 2004.

*The views expressed by the author in this article do not necessarily reflect those of ECNC or any of the other institutions referred to.*

#### ABOUT THE ORGANISATION

The European Centre for Nature Conservation (ECNC) is a public-interest foundation devoted to promoting nature conservation within public policy and scientific research, as well as through practical implementation. Its mission is the preservation of biodiversity within the pan-European setting. ECNC is a co-author of the Pan-European Biological and Landscape Diversity Strategy (published by the Council of Europe in 1995), along with the United Nations Environment Programme and the Council of Europe.

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# Growing trends in Fair Trade

Reporting by **Neville Horley**

**Fair Trade offers sound solutions for sustainable shopping, uniting as it does social justice and commercial trade. This article looks into the Fair Trade movement to discover its history and principles, and to report on its growth in the US, Canada and the Pacific Rim countries Australia, New Zealand and Japan.**

Fair trade is more than just paying farmers a little bit more for their crops. In these days of the World Trade Organisation, the Fair Trade movement is a global network for equitable trading relationships that is having an impact on consumer awareness of global trade issues.

## Alternative and Fair

The Fair Trade movement began in the late 1950s as alternative trade organisations (ATOs) in Europe and the US promoted direct equitable trade. ATOs bought directly from producers in developing countries, thus cutting out middlemen.

The original ATOs started out with the mission of helping to rebuild Europe after WW2 and were selling handmade European crafts. They later evolved into dealers of third world handicrafts. The first Fair Trade certification initiative was proposed in Holland in 1988. In 1997, Fair Trade labellers formed an international umbrella group that set criteria that define Fair Trade for each product certified under the system.

The certification system covers commodities and not crafts. Crafts are the main focus of companies that deal in fair trade goods exclusively. Thanks to certification, non-fair trade companies can buy and sell a fair trade certified product.

The Fair Trade network now comprises producers, traders, marketers, advocates and consumers. Fair Trade organisations are engaged in actively supporting producers, but also in consumer education and campaigns for changes in the rules and practice of conventional international trade.

The network builds trading partnerships based on dialogue, transparency and respect. And it contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalised producers and workers, especially in developing regions of the southern hemisphere.

## Principles of Fair Trade

The key principles of Fair Trade, summarised in the *'2003 Report on Fair Trade Trends in US, Canada & the Pacific Rim'* (the 2003 Report) include:

- **Environmental sustainability:** Fair Trade encourages producers to engage in production practices that manage and use local resources sustainably. Fair traders often work directly with producers in regions of high biodiversity in order to develop products based on sustainable use of their natural resources, giving communities incentives to preserve their natural environments for future generations;

Fair Trade encourages producers to engage in production practices that manage and use local resources sustainably

- **Creating opportunities for economically disadvantaged producers:** Fair Trade is a strategy for poverty alleviation and sustainable development. Its purpose is to create opportunities for producers who have been economically disadvantaged or marginalised in the conventional trading system;

- **Gender equity:** emphasis is often placed on ensuring that women's work is properly valued and rewarded. Women are always paid for their contribution to the production process and are empowered in their organisations;

- **Transparency and accountability:** Fair Trade involves transparent management and commercial relations in order to deal fairly and respectfully with trading partners and customers;

- **Capacity building:** Fair Trade assists in developing producer independence through sustained relationships with trading partners that provide continuity, and often include management skills development,

improved access to markets, and financial and technical assistance;

- **Payment of a fair price:** A fair price in the regional or local context is one that has been agreed through dialogue and participation. It covers not only the costs of production but enables production that is socially just and environmentally sound. It provides fair pay to the producers and takes into account the principle of equal pay for equal work by women and men. Fair traders ensure prompt payment to their partners and, whenever possible, help producers with access to pre-harvest or pre-production financing;

- **Working conditions:** Fair Trade means a safe and healthy working environment for producers. The participation of children (if any) should not adversely affect their well-being, security, educational requirements, or need for recreation, and should conform to the UN Convention on the Rights of the Child as well as the law and norms in the local context; and

- **Promotion:** Fair Trade organisations educate the public about the importance of purchasing fairly traded products, highlight the need for change in the practices of conventional trade, and publicly demonstrate how fair trade is a successful model that emphasises social justice and environmental sustainability over the endless drive for increased profits. By providing information about producers' history, culture and living conditions, Fair Trade enhances cross-cultural understanding and respect between consumers and communities in the developing world.

## The case of coffee

Coffee is the world's second most valuable traded commodity, behind only petroleum. It is the US's largest food import. The US consumes one-fifth of all the world's coffee, making it the largest consumer in the world. But how many consumers realise that agriculture



workers in the coffee industry often work in very bad conditions? Many small coffee farmers receive prices for their coffee that are less than the costs of production, forcing them into a cycle of poverty and debt.

Coffee prices are set according to the New York 'C' Contract market. They fluctuate wildly in a market dogged by trader speculation, generally hovering around \$1 per pound, but diving recently to around half that.

Most small farmers sell directly to middlemen exporters who are commonly referred to as coyotes. These men are known to take advantage of small farmers, paying them below market price for their harvests. In contrast, large coffee estate owners usually process and export their own harvests. They are sold at the prices set by the New York Coffee Exchange. But the workers are unlikely to benefit because typically they receive extremely low wages of \$2-3/day and endure poor working conditions. In Guatemala for example, coffee pickers have to achieve a 100 pound (lb) quota in order to get the minimum wage of less than \$3/day. A recent study of plantations in Guatemala showed that: over half of all coffee pickers do not receive the minimum Guatemalan wage; workers were forced to work overtime without payment which often led to them bringing their children to help them in the fields.

Fair Trade is a viable solution to this crisis. The importer must pay a minimum price per pound of \$1.26, as well as providing technical assistance and the other measures outlined above. And paying farmers a fair wage with incentives for ecological practices is the best way to encourage sustainable farming. Fair Trade for coffee farmers means community development, health, education, and environmental stewardship.

### Growth in America and Pacific

Total sales for the Fair Trade industry increased 37% during 2002, from \$183 million to \$251 million, according to a report published jointly by the Fair Trade Federation (FTF) and the International Federation for Alternative Trade (IFAT). The 2003 Report covers the progress of Fair Trade in the United States and Canada, and the Pacific Rim countries of Australia, New Zealand and Japan.

The report details the industry structure, sales, product sourcing and employment, as well as the monitoring,

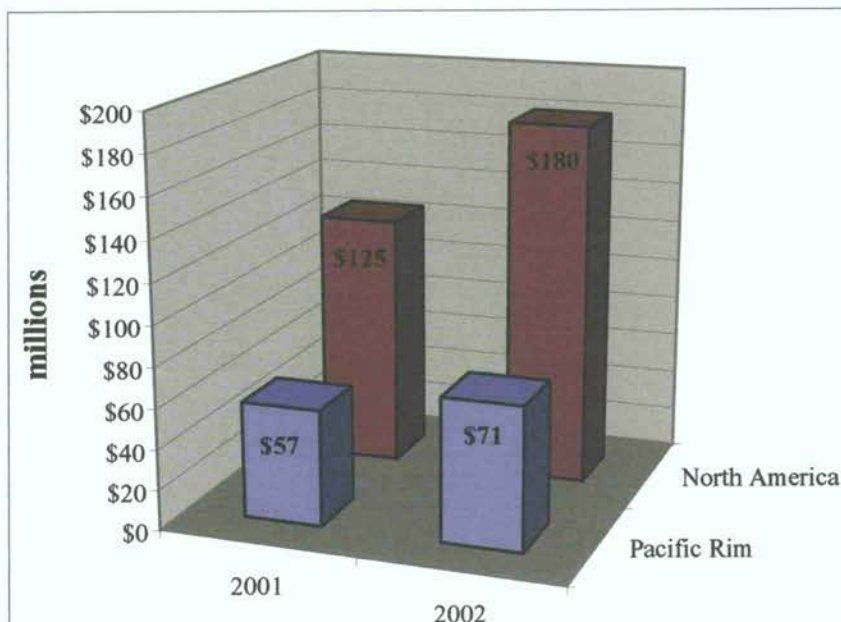


Figure 1. Year 2003 Total gross sales in US, Canada, Pacific RIM.

certification, labelling and advocacy services that the movement is engaged in.

Total sales in North America in 2002 were \$180m, an increase of 44 % from 2001. Sales in the Pacific Rim were \$70.6m, a growth of 23%. Total gross sales for FTF & IFAT members in the USA and Canada were \$56.2m in 2002, an increase of 17% from 2001 (see Figure 1).

### Fair Trade enhances cross-cultural understanding and respect between consumers and communities in the developing world

Coffee was the Fair Trade product with the fastest growth in sales in 2002. In North America, the highest proportion of FTF members' sales in 2002 came from certified fair trade coffee, 29% of total sales or \$16.3m. Handicrafts accounted for 24.5%, or \$13.8m, and jewellery 11.5% or \$6.5m. In the Pacific Rim countries, gifts and clothing accounted for 50% of all sales (see Figure 2).

The estimated retail value of coffee sold under the TransFair USA label increased by 53% from \$85.6m in 2001, to \$131m in 2002. TransFair USA estimates that there are about 12,000 outlets in the USA where Fair Trade labelled products may be purchased.

The producer regions most important to the North American Fair Trade industry in 2002 were Asia, and Central America/Caribbean (including Mexico).

### Services offered by fair traders

Almost 90% of FTF and IFAT members who responded to the report provide advance payment services to producers. Over 80% conduct personal visits. FTF companies also help with development and design – 79% assist in product development and 68% with design assistance.

Some FTF and IFAT members engage in lobbying and campaigning for Fair Trade. These efforts fall into five broad categories: general consumer education campaigns, fair trade programmes at local level, media and public relations, writing, speaking, and legislative lobbying.

### Future expectations

Many FTF companies commented positively on growing consumer awareness of the Fair Trade movement and the positive impact this has on the industry.

FTF members expect a growth in total sales of approximately 26% in 2003. The largest increases are expected for coffee, cocoa, chocolate, toys, tea and beads.

TransFair USA expects the volume of licensed Fair Trade certified coffee to increase by 23% in 2003 to 12.5m lbs, tea volume to increase by 100%, and cocoa by 4,000%. TransFair Canada expects the volume of its licensed coffee to increase by 55% during 2003, up to 1.45m lbs. TransFair Japan expects coffee sales to increase by up to 80% in 2003 as supermarkets begin selling certified coffee in September, and tea sales to increase by 20%.



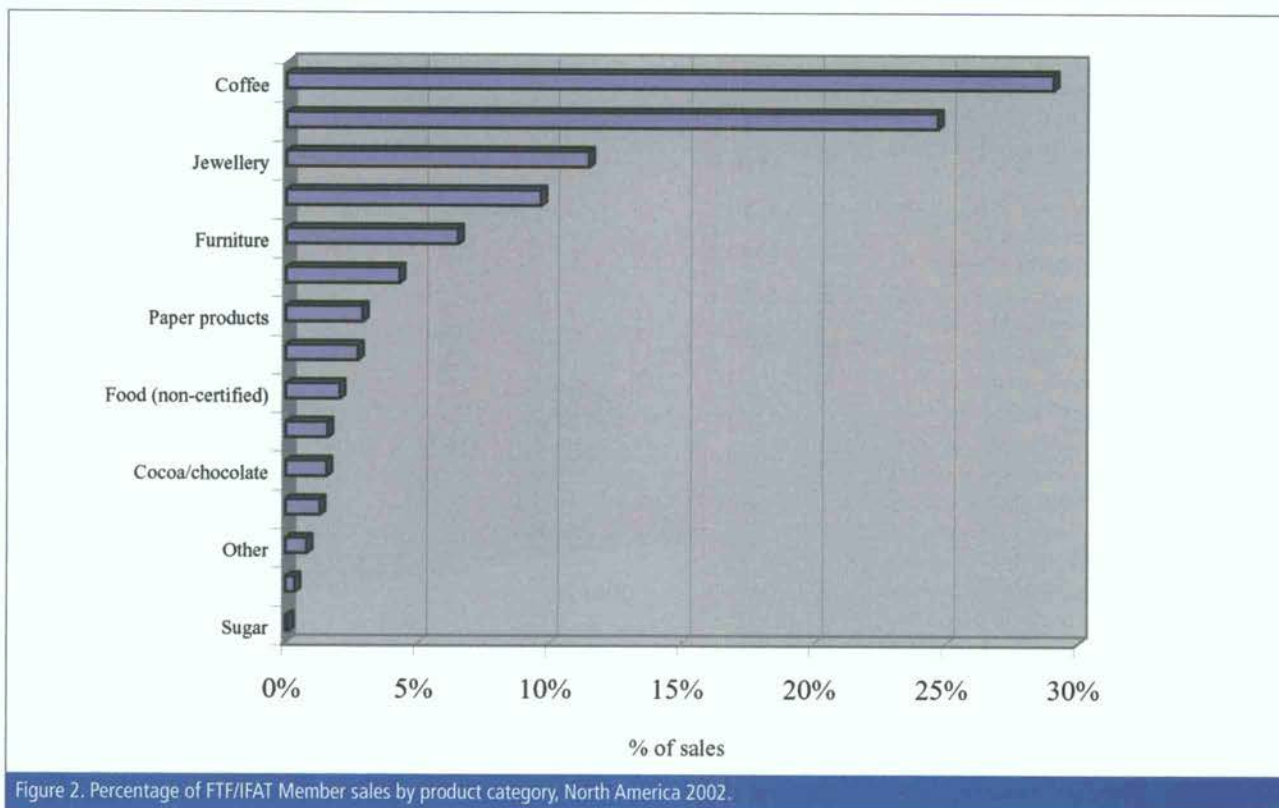


Figure 2. Percentage of FTF/IFAT Member sales by product category, North America 2002.

### Important Trends

There were three themes running through comments made by respondents to the survey with regard to trends they see occurring in Fair Trade:

- **Consumer Awareness:** Fair Trade companies generally agree that increased efforts to educate consumers about fair trade have led to greater awareness and increased sales.
- **Certification:** There is general agreement that Fair Trade certification, especially of coffee, is profoundly affecting the industry as a whole. However, opinions vary as to whether all of the changes are good for the movement as a whole.
- **Unfair Competition:** Some Fair Trade companies are expressing concern about competition from companies that do not practice Fair Trade but sell similar products that may cause confusion in consumers.

Overall, the report shows that Fair Trade is a viable international system that is profitable for business while promoting social and environmental values and helping low-income producers in developing countries build better lives. As consumers come to appreciate the depth of the difference between Fair Trade and some products traded in other ways, the movement is likely to grow – albeit

slowly if most shoppers remain focused only on the cheapest goods – for the benefit of producer, consumer and environment alike.

Overall, the report shows that Fair Trade is a viable international system that is profitable for business while promoting social and environmental values and helping low-income producers in developing countries build better lives

### The Nestlé angle

A spokesman at food giant Nestlé told SDI that the coffee business is cyclical: prices rise when production is low – such as when crops fail – and prices fall when supply rises against demand. “The most important thing is to get some balance on the market,” he said. In the present market, prices are low because of overproduction. “The main impact we can have in such a market is to increase consumption – that is more productive in the long term than cutting production.”

In the past 10 years, coffee consumption has increased 17%, and consumption of soluble coffee by 35%. A long-term market with consumption growth offers coffee farmers a chance to sell their product, said the Nestlé spokesman. The growth markets of the future are in places such as Russia,

Mexico, Thailand and China, not in Western coffee shops.

Nestlé accepted that by selling direct, farmers get a higher return on their harvest. “We buy 14%, or 110,000 tonnes, of our coffee direct from farmers. We can do this where we have a factory in the country – the whole procurement process is tied to this. All Fair Trade organisations buy only 25,000 tonnes.” Nonetheless, Fair Trade is “a useful way of raising consciousness of a specific issue,” said the spokesman.

Ultimately, we consumers have a considerable say. Who and what do we, or should we, consider when we buy our food and other goods?

### ABOUT THE REPORT

‘2003 Report on Fair Trade Trends in US, Canada & the Pacific Rim’ is produced jointly by the Fair Trade Federation and the International Federation for Alternative Trade. Fair Trade Federation, based in Washington DC, USA, is a trade association, and also acts as a clearinghouse for information on Fair Trade. International Federation for Alternative Trade, based in the UK, is a global network of Fair Trade organisations composed of 202 members in 55 countries. The report can be viewed at <http://www.fairtradefederation.com>.

The report was co-authored by Katherine Anderson of IFAT and Chris O’Brien former associate director FTF. Research by Mary Beth Childs.



# Community scouts promote conservation and livelihood security in the Mara ecosystem, Kenya

Matt Walpole, Durrell Institute of Conservation and Ecology (DICE), Canterbury, UK

Many rural communities in sub-Saharan Africa face the difficult challenge of coexisting with wildlife, where conflict over resources often results in increasing hardship for people and declining tolerance of wildlife. Yet wildlife provides a potentially rich asset for communities if properly protected, managed and utilised. Pioneering community scout programmes around Kenya's Masai Mara National Reserve illustrate a sustainable means of conserving both wildlife and local cultures, whilst reducing the costs of human-wildlife conflict, securing local livelihoods and providing a means of tapping the growing market for ecotourism.

The Masai Mara National Reserve in Kenya is undoubtedly the jewel in the crown of East Africa's natural heritage. With upwards of 200,000 visitors a year, it generates millions of dollars in entrance fees alone. Yet the average Maasai agro-pastoralist living near the Reserve sees little of these benefits, whilst suffering livestock depredation and crop losses to wildlife.

This is not an uncommon scenario in Africa. It has long been recognised that the costs of living with wildlife, particularly for poor, rural communities in the developing world, are rarely offset by any material benefits. Whilst the economic benefits of wildlife and biodiversity are diffuse and accrue to society in general, and financial benefits generally accrue to governments and external entrepreneurs, many of the costs are acute and borne locally. This does nothing to improve tolerance among local communities, and the resultant retribution and loss of range may threaten species survival.

Whilst the economic benefits of wildlife and biodiversity are diffuse and accrue to society in general, and financial benefits generally accrue to governments and external entrepreneurs, many of the costs are acute and borne locally

Community-based conservation and development initiatives have been attempting to integrate wildlife and local livelihoods for mutual sustainability



Figure 1. The Masai Mara appears the archetypal wildlife paradise, but provides little benefit for surrounding local communities. This in turn threatens the survival of the ecosystem.

for many years, often based around alternative forms of socially and environmentally responsible tourism. Yet success has often been elusive, for a variety of reasons. Rural communities rarely have the skills or resources to engage with the tourism industry, thereby limiting their capacity to benefit. Moreover, even meagre local benefits often remain inequitably distributed and are only indirectly linked to environmental well-being and wildlife survival. Sustainability requires direct and tangible incentives for conservation. Our experience in Kenya suggests that community scout programmes offer an ideal mechanism for developing an interface between wildlife and communities.

## Community scout programmes in Africa

The concept of community scout programmes as a modern conservation and development tool in Africa surfaced

some years ago. Their advantage is that they rely largely on local skills and knowledge, and so provide an ideal form of employment for local community members with a minimum of technical training. Equally, they provide an inroad to local information networks that improves law enforcement and anti-poaching measures. Furthermore, this participatory approach to conservation engenders a greater sense of community ownership and support for wildlife that may otherwise be elusive. As a result, such schemes are appearing across the continent.

In 1998 the Durrell Institute of Conservation and Ecology (DICE), with financial support from the UK government's Darwin Initiative for the Survival of Species, began a programme of research and development aimed at reducing conflict between people and wildlife in the Mara ecosystem. A central theme of the programme is community participation and capacity





Figure 2. Community scouts provide home grown monitoring and security services upon which conservation and development programmes can thrive.

building. A network of trained community scouts has been established, and local co-ordinators have been taken to DICE for postgraduate training. As the network has grown, so has its scope, and it now fulfils a broad range of objectives.

### Monitoring and mitigating human-wildlife conflict

An original team of 10 scouts in the north west of the ecosystem was recruited primarily to monitor human-elephant conflict, and in particular crop raiding. This is a relatively fertile area in which the elephants' forest refuges have been increasingly eroded by small-scale cultivation. The scouts were selected from strategic locations throughout the district where conflict was greatest. By developing relations with neighbouring farmers they have been able to rapidly detect and monitor crop raiding by elephants. Information regarding the animals involved, the amount of damage and the farmers' responses is collected using a standardised reporting form. Analyses of these data have helped to identify simple, grass-roots solutions to the problem, and farms that were regularly raided are now protected.

In 2002 a second team of 10 scouts was recruited and trained in the more arid south-east of the ecosystem, where livestock predation rather than crop raiding is the principal form of conflict. Using similar techniques, these scouts are evaluating losses to predators such as

leopard and hyaena and attempting to identify patterns and solutions. Both groups of scouts benefit from a small honorarium, the training they receive, and equipment such as bicycles and Global Positioning Systems (GPS). Their communities benefit not only from their efforts to reduce conflict, but also through their role in raising community awareness about wildlife, conflict and conservation. As a result a number of community forest, wildlife and farming associations have been established to further local aspirations with regard to integrated conservation and development.

Monitoring wildlife and identifying critical core areas is the first step in sustainable land use planning. Information collected by community scouts is helping to identify conservation areas to be protected and managed for tourism or other forms of sustainable natural resource management. In this way the scout programme provides the basis for generating wider community benefits from wildlife

### Monitoring populations of endangered species

Around a decade ago, a local NGO, Friends of Conservation, began a small-scale community scout programme to monitor the few remaining black rhinos living outside the Mara Reserve. With

the technical assistance of the Darwin Initiative programme, this monitoring has been expanded to incorporate a much wider range of species. A team of 14 scouts patrols on foot, in pairs, in areas of thick thorn bush where vehicle travel is almost impossible. By collecting information on signs and sightings of wildlife in different areas these scouts are building up a picture of how wildlife utilises the district and which areas are most important for different species.

Besides the black rhino, some 30 species of large mammal are monitored. Most significantly, the scouts have been instrumental in documenting the return of the critically endangered African wild dog to the region. Persecuted throughout Africa as a pest, the species has disappeared from much of its range. That it appears to be re-colonising the Mara ecosystem in this unprotected corner of Maasailand is testament to the increased tolerance of local people, and may provide a valuable tourism asset to the community if it remains concentrated in this area.

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### Protecting wildlife and conserving cultures

A third role for community scouts is to provide wildlife security. Poaching remains a significant threat to species such as the African elephant, and as wildlife declines, so too will any prospect of tourism revenues. To address this, a volunteer team of Maasai morans (warriors) has been recruited to gather intelligence on poaching. In one year alone they uncovered evidence of 35 poached elephants and recovered eight ivory tusks. As a result, two suspected poachers were arrested. Patrols by wildlife security scouts also serve to improve human and livestock security.

The Maasai morans represent the warrior age group prior to graduation to elder status. Their traditional role was to roam freely, living off the land, protecting their clan territory and livestock from outsiders, and indulging in occasional hunting and raiding. As



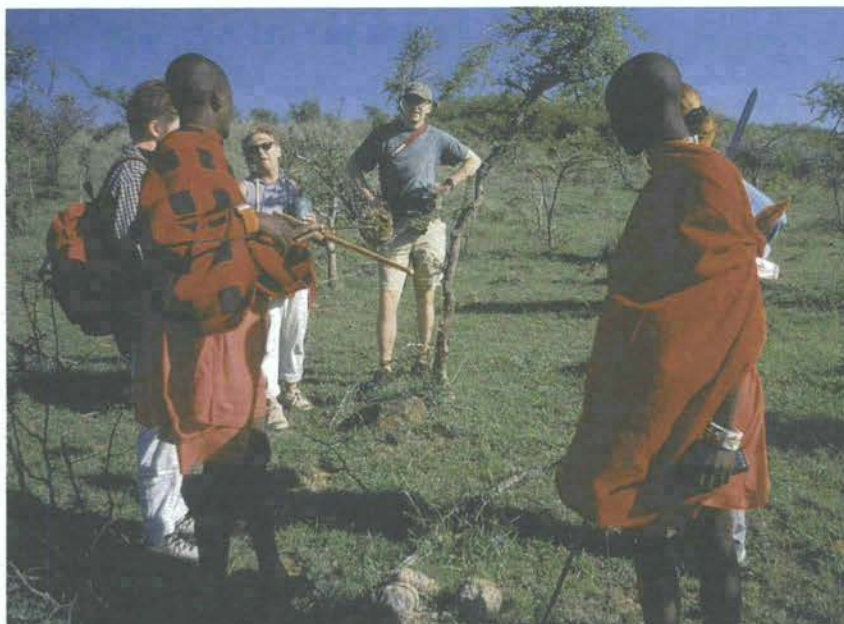


Figure 3. With training, community scouts can lead walking safaris that give tourists a close-up view both of the environment and the local cultures that depend upon it.

Maasai society has adopted a more sedentary lifestyle, the role of the morans has become increasingly untenable. One of the reasons that the morans have been so enthusiastic to volunteer as wildlife scouts and informants is because it provides a modern rationale for their traditional peripatetic lifestyle. Thus, community scout programmes may provide an incentive to maintain cultural traditions into the 21st century.

### Capturing the benefits of tourism

Increasingly, visitors to Africa are looking beyond the standard minibus tour of national parks in search of more authentic wildlife experiences. Walking safaris, be they a short sunrise stroll or an expedition lasting several days, are a valuable product that communities in wilderness areas can offer. Trained community scouts, with their knowledge of the environment, wildlife and its cultural significance and utility, are in a strong position to provide guiding services, either supporting an external professional guide or, with adequate language and hospitality training, leading their own walks. Several lodges in and around the Mara Reserve are now employing local Maasai guides to operate walking safaris, and a Maasai guiding school is soon to open locally. Our project will build the capacity of community scouts in peripheral areas where (a) wildlife conflict is significant, (b) tourism potential is not yet exploited for community gain, and (c) tour operators are keen to develop walking safaris.

### Sustaining community scout programmes

The Mara programme has been supported by the Darwin Initiative, alongside other partners such as WWF and Kenya Wildlife Service, over two successive phases since 1998, and this support may be extended further. However, although such programmes provide an attractive proposition for both conservation and development oriented donor organisations, their long-term sustainability will be determined by their ability to demonstrate their utility to beneficiaries.

Community scout programmes are an extremely cost-effective way of sustaining wildlife, cultures and local

livelihoods, and providing resources for ecotourism. As such they are of benefit to national and local wildlife agencies, local communities themselves, and the tourism industry, so all these stakeholders should have an incentive to support such programmes. In northwest Namibia, a donor-funded scout-programme is now sustained by the community from the proceeds of wildlife tourism and hunting. Equally, a community scout programme around Amboseli National Park in Kenya established by Kenya Wildlife Service has since been expanded and maintained by commercial tour operators.

In the short term, donor support is vital to set up such programmes, but the key is to establish partnerships between beneficiaries. Communities around the Mara are already contributing, since scouts are not paid a full salary – some are voluntary, although most receive modest honorariums. Equally, we are working to develop linkages with the tourism industry and local authorities to demonstrate the value of community scouts and encourage wider support. Ensuring sustainability is the greatest challenge, but increasing levels of community participation in conservation and natural resource management through community scout programmes throughout Africa are testament to the applicability of this approach.

#### ABOUT THE AUTHOR

Dr Matt Walpole is a senior research associate at D.I.C.E., with multidisciplinary research, project management and consultancy experience across the tropical developing world. His focus is on human-wildlife conflict mitigation, the role of ecotourism as a conservation and development tool, and the use of GIS for conservation management. He currently manages DICE's Darwin Initiative programme in the Masai Mara. The Darwin Initiative is a small grants programme of the UK government, which uses UK expertise working with local partners to help countries rich in biodiversity but poor in resources to fulfil their commitments under the Convention on Biological Diversity. It has supported nine projects at DICE since 1993.

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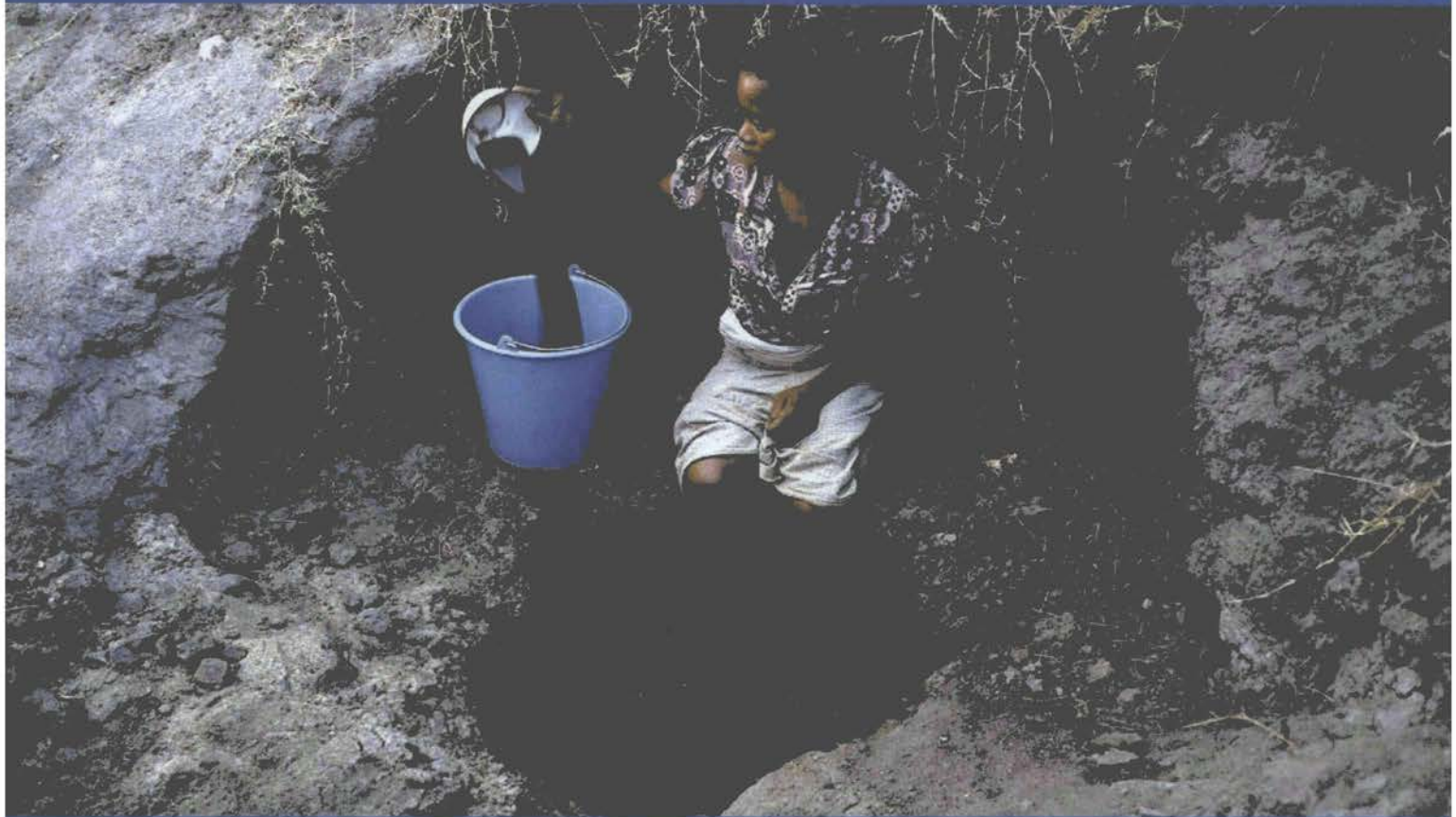
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[www.kent.ac.uk/anthropology/dice](http://www.kent.ac.uk/anthropology/dice)  
[www.darwin.gov.uk](http://www.darwin.gov.uk)

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# What sort of mother makes her child drink water like this?



WaterAid/Jeremy Horner

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# Health & Social Issues



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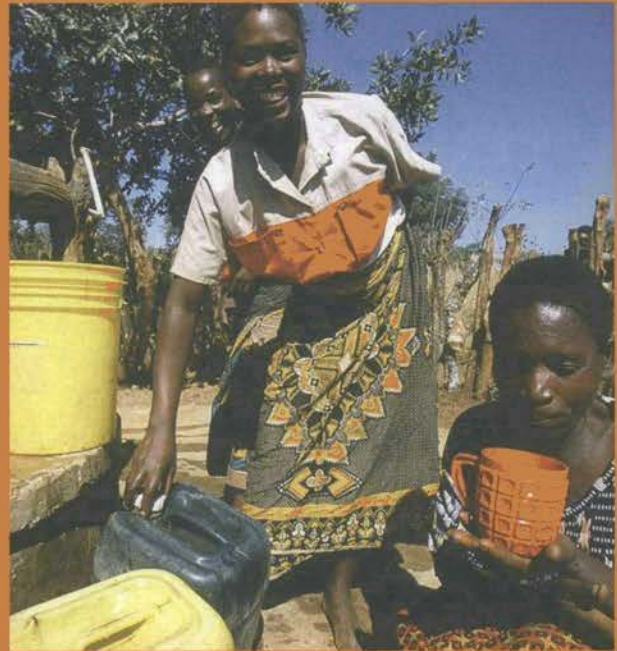
Developing a global HIV/AIDS vaccine  
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Supply crisis in reproductive health  
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The weight of water  
page 141



A global vaccine for HIV is one amongst a handful of important approaches to the global AIDS epidemic. Contraception information and physical supplies of pills and condoms are needed for another global phenomenon: population. A further global concern, water, is also addressed: how local water projects can change people's lives. Telephone portals can be used to share and gather information on all these issues, and may have a vital development role to play in poorer countries.



Together we can change the world for refugees.  
The UN Refugee Agency: your best chance to help.

UNHCR/B. Needleman/2002



Zambia—Newly arriving Angolan refugee transferred from border town Shangonboria to Nangwashi camp reception centre.

**“Private individuals and companies like Microsoft are contributing resources and expertise to ensure that refugees get the vital help they need to rebuild their lives.”**

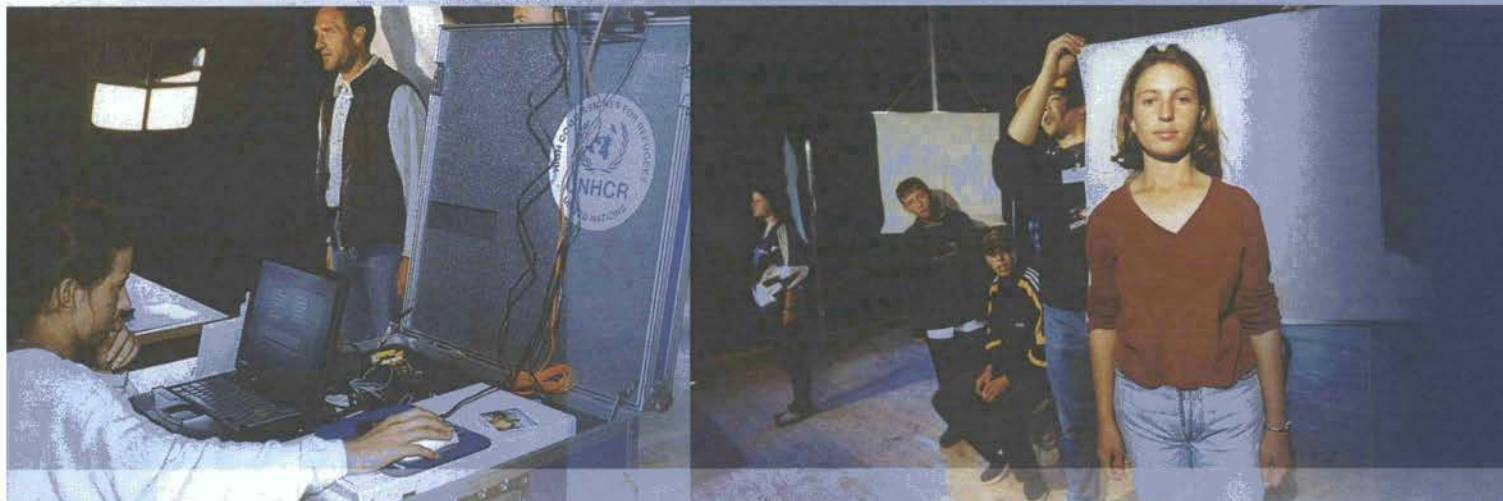
Ruud Lubbers, United Nations High Commissioner for Refugees



For more information about the UN Refugee Agency or to support our work, visit our website at [www.unhcr.ch](http://www.unhcr.ch) or send an e-mail to [HQPA00@unhcr.ch](mailto:HQPA00@unhcr.ch)  
UNHCR, Private Sector and Public Affairs Section, 94 rue de Montbrillant, 1202 Geneva Switzerland Fax: +41 22 739 7395



# The Microsoft-UNHCR Partnership



At Microsoft our core mission is to help businesses and people everywhere to realise their full potential. Microsoft staff are passionate about technology and about putting it to work to solve big challenges in society. Our partnership with the United Nations High Commissioner for Refugees was born, in 1999 during the Kosovo refugee crisis, from this passion. Watching the crisis unfolding, a group of Microsoft staff joined together and contacted the UNHCR to volunteer their time and technical knowledge to help the agency and the refugees.

The UNHCR has one of the hardest and most vital roles of any international agency. Along with healthcare, education is a key force in enabling and empowering refugees to cope with circumstances in which they lack control over their future. Through our work with UNHCR we have seen that Information and Communication Technology can be a significant positive tool in improving the lives and prospects of refugees—some of the world's most marginalised people. And we've come to understand firmly that the needs of refugees for education and skills training must be addressed as part of our responsibility to build a truly inclusive and sustainable information society.

Back in 1999, in Kosovo staff from UNHCR, Microsoft and our partners Hewlett-Packard, Kodak, Screen Check BV and Security UK Ltd developed and deployed a hand-held and mobile registration system to assist refugees who had lost or been stripped of

their identification documents. The system enabled more than half a million refugees to quickly regain proof of their identity. Working together in Kosovo inspired our company and staff to find further ways to partner in putting IT to work for refugees.

So we worked with UNHCR to develop the mobile system further, resulting in the Refugee Field Kit 2000, which is used today in more than twelve countries worldwide and produced 50,000 identification cards. And, in 2000, Microsoft Croatia participated with the UNHCR to create a local skills training project for refugees and internally displaced people affected by the Balkan war. This was the start of a broader partnership that led, in December 2003, to a Memorandum of Understanding between UNHCR and Microsoft EMEA to focus joint partnership efforts in the following areas:

- Working together to establish Community Technology Learning Centres for jointly selected refugee populations, to assist UNHCR programmes on personal development, education and human rights protection. The first pilots are in Dadaab, Kenya working with Somali refugees and St Petersburg, Russia working with Iraqi and Afghani refugees.
- Extending our partnership to assist UNHCR in building a standard platform for refugee registration data at UNHCR field operations around the world by providing technical expertise for the UNHCR 'Project PROFILE'. We plan to

have a volunteer corps of Microsoft staff in the field when this rolls out over the next year.

- Looking for alternative ways to use IT and Microsoft network to help raise awareness of UNHCR's mission and activities among the general public with the aim of increasing support for UNHCR's vital work.

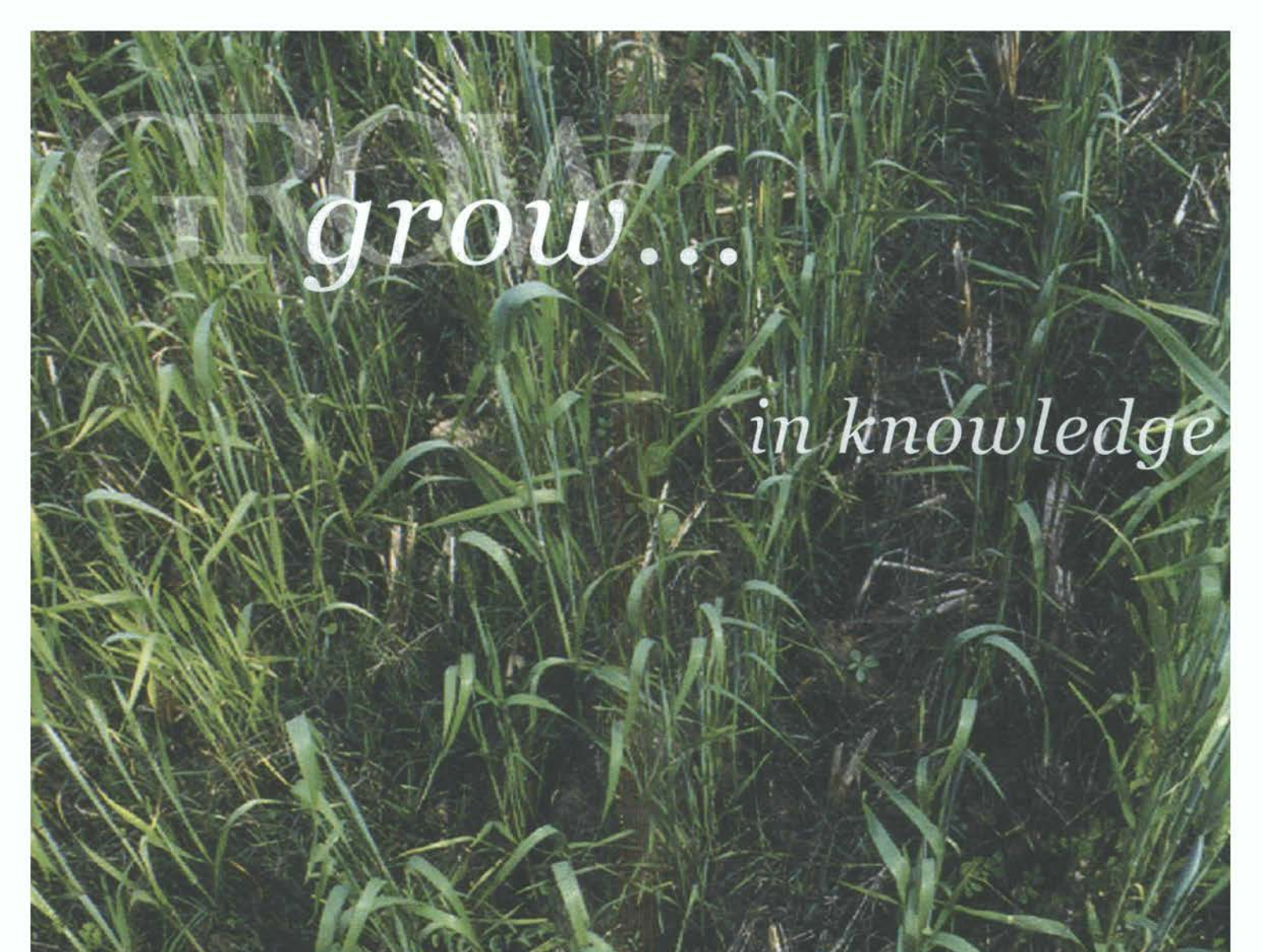
At Microsoft we believe that innovative public-private partnerships are a key tool to address the big challenges of our times and societies.

By experience we know that partnerships are an invaluable source of lateral thinking and innovative learning. Partnerships are a unique opportunity for sharing with peers in society but most importantly they offer a powerful driver for constructive self-criticism and self-improvement. We have been humbled by our partnership with UNHCR and we are most honoured to have a renewed opportunity to continue working together. By combining our know-how, technology solutions as well as financial investments and employee commitment with those of UNHCR, we are committed to help the UNHCR make a critical difference in the lives of refugees—people whose lives have been uprooted but whose potential remains undiminished.

*Elena Bonfiglioli  
Director CSR and Community Affairs  
Microsoft EMEA*

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SUSTAINABLE DEVELOPMENT  
INTERNATIONAL



# WorldTalk: information by telephone

Nathalie Muller, Project WorldTalk, UK

For many people in developing countries real access to relevant information is not a luxury; it can not only save lives, but also lead to long-term improvement in the quality of life. The telephone is the best way to start closing the information gap. A new NGO has developed a system of voice portals that can bring the idea to reality.

Perhaps you have heard the term 'Digital Divide,' but are not quite sure what it means. To find out you would type the question "What is the digital divide?" into an internet search service, and in 0.20 seconds you would find about 1,440 answers.

Now suppose you live in a rural village in a developing country. Perhaps you have heard about immunisation of babies, but you are not quite sure whether it is important for your baby as well, or what you should do about it. To find out you will need to go to the health clinic. However, the nearest one is only available one day per week, in a village 10 miles away. Since you and your baby are not ill there is no real reason for you to take time off to go to the clinic. So you don't do anything, until your baby falls ill.

Or perhaps your village does not have a good toilet system and there have been many cases of diarrhoea. You have heard that the government can help, but don't know how to go about it. To find out you have to ask a district councillor, but they are only available two days per month in your area, and there are long queues of people wanting to meet with them. So you don't do anything, until your baby falls ill.

## Oral traditions

Arguably, once the basic needs for food and shelter have been met, access to

## Messaging

Why do people living in rural communities need to send messages across vast distances? Don't they live insular lives that start and end with the village bounds? No. They depend on family members who work in urban areas and who send back income to support their households. Messaging is important to people. The Worldbank estimates that between 15-40% of phone calls made by low-income populations are linked to the initiating and/or tracking of remittances. The possibility of leaving messages will save both time and money.

information is the primary factor affecting living standards in poor communities. In particular rural communities in developing countries have poor access to information. They

At first sight the need for access to information does not look very compelling – until you realise it improves lives and can save lives; on a daily basis; consistently; for millions of people

seldom have newspapers, television or computers, and have limited radio and telephone access. For these communities a lot of information is impossible or very costly to obtain, and is hardly ever up-to-date when finally made available.

It is true that the internet could bring great benefits to poor rural areas: transferring information, enabling

communication and conducting transactions. The World Summit on the Information Society, held in Geneva in December 2003, was very focused on computers and internet access. However, these are largely irrelevant to the communities most in need of vital information.

Computers are not the solution, but people in the developed world focus on them and on internet access because these have had such a large impact on our way of living. Computers are very expensive, especially for the vast majority of people in developing countries, and can therefore only be rolled out in a very limited fashion. They require training, maintenance and reliable electricity supply. Internet access requires good quality phone lines, (computer) literacy, and/or an intermediary to assist. All of these are very scarce in developing countries.

Yet people in these countries desperately need access to reliable and



Figure 1. Don't judge a telephone container by its exterior...

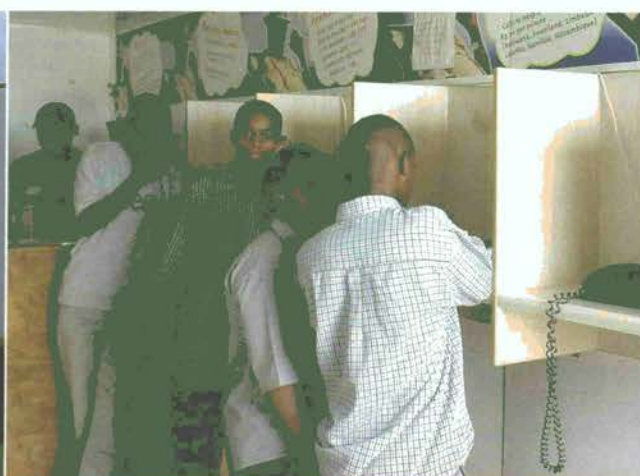


Figure 2. ...inside is a lifeline to vital information.



### Advantages for users...

In poor communities computer access is limited and literacy levels may be low. Conversely, telephones require little maintenance and no training. They are accessible via fixed and mobile networks, which are spreading rapidly in developing countries. Their use is affordable to many people. Telephones provide on-demand and interactive access to information, as opposed to radio broadcasts, which are programmed, fixed and one-way.

### ...and for disseminators

Compared to other access media such as digital television, mobile WAP phones, internet kiosks, and cyber cafes, the telephone voice portal is lowest cost, lowest maintenance, and easiest to use. It can serve the widest proportion of a population, with no training or literacy required. It builds a foundation from which other internet services for rural areas can develop in the future. It is well suited to operation by local entrepreneurs, but also encourages international organisations and businesses to get involved. And last but not least, it uses telephones – an infrastructure which is rapidly expanding.

relevant information, on issues such as child healthcare, HIV/AIDS, crop market prices, divorce laws, land titles, education, etc. This information is not a luxury; it can not only save lives, but also lead to long-term improvement in the quality of life. Methods of access need to be affordable, easy-to-reach (so, not in an internet kiosk, many villages away), available on-demand to women and youths as well as men, and should circumvent the problem of poor literacy.

The telephone is the obvious answer. Recent technologies make it possible to access internet-based information (in voice XML format) using any telephone, be it a mobile, landline, satellite, shared or public phone. Telephone penetration is low in developing countries, but it is growing rapidly. Audio information builds on the oral traditions that exist in most

developing countries. Also, in many developing countries there is a clear difference between written and spoken text. The formality of written information forms a barrier for many poor, less literate people. Radio is

What is needed is  
an internet service in audio  
format, so that people can listen to it.  
This can be done in the form of voice  
portals, which are web portals  
accessed by telephones

therefore very popular, but the information it provides is not available on-demand.

What are needed are internet services in audio format – so that they can be listened to. These exist in the form of 'voice portals,' which are web portals

accessed by telephones. Voice portals already operate in the developed world, but can play a tremendously important role in the developing world. Once a local voice portal has been set up, critical information is just a phone call away.

### Ideas into action

WorldTalk is a small non-profit start-up NGO that aims to give people in rural areas access to information in their own language, over any telephone, on a free or low-cost number. It was set up in London over two years ago by a group of colleagues and friends from various international backgrounds in IT and management consulting. With help from friends in the UK and in South Africa they developed the technology and sustainability model, and also ran a successful test service in KwaZulu Natal in South Africa.

Content depends on local needs and has to be provided in the main local languages. WorldTalk carried out an end-user market study in KwaZulu Natal, which showed a great need for accessible information on topics like housing, welfare, small business and healthcare.

It works as follows: callers dial the WorldTalk number from any phone – be it their own, a pay phone, or a shared phone. They get connected to the WorldTalk server, which is in turn connected to the internet. Using the telephone keys, callers select the language they want to hear and then the service they want from a cascading menu. If they request to listen to information the voice server links to the correct content and plays it to them

### Examples of what the WorldTalk system can provide:

- **Women's and Children's healthcare:** women do not always have proper access to health information, yet it is women that are mostly concerned with family members' health. Providing them with reliable information on pregnancy, childbirth, children's healthcare, nutrition, but also breast cancer, is a very effective way to educate them on these important issues;
- **Government services:** for many governments of developing countries expanding the reach and accessibility of services and public infrastructure is a real challenge. Public information includes information on housing and sanitation, on public transport (timetables etc.), legal information, and utility information;
- **Family planning and HIV/AIDS:** education and prevention are often regarded as taboo subjects. Having anonymous access to information about these issues may greatly enhance knowledge and understanding, and eliminate the spread of a lot of dangerous misinformation;
- **Market information:** national (or even global) market prices, demand postings, prices for inputs, commodity prices, crop status and precise weather information can increase farmers' incomes dramatically;
- **Messaging services:** people will be able to have their own telephone number and mailbox on shared telephones;
- **Business information:** micro-business support, i.e. information on how to set up a business, advice on how to run a business, obtain financing etc;
- **Banking:** with micro-finance institutions operating in many (developing) countries, voice-based web access can provide a cheap and simple way to interact with the bank or carry out transactions;
- **Disaster management:** for national and local authorities the key issues are communication, coordination and information, which are very suitable to be handled by the WorldTalk platform.





Figure 3. Research group: End-user research group in action.

in their local language. Content is stored as pre-recorded audio, but information that changes frequently (like daily changing market prices) is generated on-the-fly using text-to-speech.

For example, if they want to find out the price of sugar cane in the main three markets of the area callers would press the key for Market Pricing, then select the crop and then each market in turn. The system picks up daily updated prices from the internet and uses text-to-speech to read them out. Callers can also press a key to have the prices sent to a mobile phone number in SMS format. As another example, if callers want to deposit information, like offering a piece of furniture for sale, they press the key for Classified Ads and follow the instructions. They can record their ad, which can then be listened to by other callers. Contact information for the vendors can be requested again by pressing keys. The same principle can be applied to electronic job exchange, where people can deposit both requests and offers for jobs. Callers can also be connected to other phone (counselling) services or directed to a call centre for help.

If you would like to try this yourself, a test version of the service can be reached in the UK on 01372 809 444, and in South Africa on 012345 9058.

There are many more possible applications for the system. For example, the WorldTalk system also provides a good platform for group efforts like epidemic tracking and disaster management in large and/or rural areas. Health workers, local public services, and aid organisations can use the system to deposit their latest data in a central place, and listen to the consolidated data and to information deposited by their (remote) colleagues.

The system is developed to be low cost, fully scalable and easily replicable across countries. The content consists of audio information files, which can be stored or updated anywhere on the internet. This makes updating information very easy and cheap, as it only involves re-recording the relevant audio file, or part thereof, which could even be done over the phone through a secured process.

### Self-sustainability the aim

WorldTalk's UK team members come from backgrounds in operations, IT and management consulting, education and banking. The South African efforts are lead by Professor Sam Zondi, former Head of Campus at the Technikon Natal Pietermaritzburg.

WorldTalk strives to create a network

of self-sustainable CountryTalk operations in developing countries. WorldTalk manages the development of the technology platform, the set-up, and tries to find the initial financial support. Local CountryTalk operations will comprise a technology hosting centre, a marketing and research team, and an audio content department. Supported by WorldTalk, it is their role to develop and manage local operations, in particular relations with local NGOs and government departments.

Critical information should be accessible to everybody, which means it must be free of charge to the end users. To make it work, each CountryTalk operation will be self-sustaining through two streams of revenue. Firstly, monthly hosting fees charged to government departments, NGOs and (potentially) companies who develop, host and distribute information content. Secondly, sponsorship revenue from advertisements at key points in the recordings. Certain services and categories of information may be charged at a premium rate, for example Classified Ads.

### What's next?

It will take a number of generations before significant computer literacy takes off. We need to start now with something that can bridge the gap today. Voice portals can provide access to the internet for millions of people that would otherwise never benefit from the information revolution. WorldTalk can make it happen, but as a start-up NGO it needs support. WorldTalk and SouthAfricaTalk are run and paid for by volunteers. We have received some seed financial contribution, notably from Accenture and from the OKN, and in-kind support from various individuals, companies and organisations, both in South Africa and in the UK. We are now looking for \$90,000 to run the pilot project in South Africa, which will demonstrate the viability and potential of our system.

### ABOUT THE ORGANISATION

WorldTalk is a start-up non-profit organisation. It was set up in London in 2001 by a group of colleagues and friends from various international backgrounds in IT and management consulting, and with help from a group of supporters. The aim was to let poor communities reap the benefits of progress in voice technologies. The group has developed the strategy, technology and sustainability model of the organisation, as well as run a test service in South Africa.

### ENQUIRIES

Nathalie Muller is a founding director of Project WorldTalk. She was a management consultant with Arthur D. Little in London and holds a PhD in physics from the University of Amsterdam.

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# UNDP and the Private Sector

## Building Partnerships for Development

### Business and Development

Sustainable development and long-term private sector growth are inextricably linked. On one hand, the private sector is central to the achievement of poverty reduction and development. Without a strong private sector, the economic growth, jobs, products and services needed to achieve the Millennium Development Goals will not be delivered.

Yet, development and poverty reduction are equally crucial to the long-term success of business since they set the stage for future markets that are more stable and prosperous. In a world where four out of every five consumers live in poor developing countries, the private sector recognizes the development of these countries is in its own self-interest.

### United Nations Development Programme

The United Nations Development Programme (UNDP) is the UN system's global development network focusing on alleviating poverty and achieving sustainable development. We are on the ground in 166 countries, working with them on their own solutions to global and national development challenges. As we undertake this work, we increasingly seek to partner with the domestic and international private sector to increase our impact and define long-term sustainable solutions.

The following short examples provide a glimpse of how UNDP is working with the private sector. More information can be found at <http://www.undp.org/business>.

### Growing Sustainable Business For Poverty Reduction

The 'Growing Sustainable Business for Poverty Reduction' initiative (GSB) aims to facilitate and increase viable, sustainable investments and business activities that contribute to the achievement of the Millennium Development Goals, particularly in connection with local economic and small enterprise development.

Through this initiative, UNDP, under the framework of the UN Global Compact, brings together the private sector, governments, civil society and donors to identify investment projects and ensure that they are sustainable.

Activities are under way in Ethiopia, Tanzania and Madagascar, where a number of multinational and domestic companies, under UNDP's stewardship, are working with local governments, NGOs and donors to develop specific projects. These include local partnerships for rural electricity supply, access to telecommunications services in rural areas, improved community water supply, strengthening of local distributors of fuel products and expansion of eco-tourism, as well as ventures to enable farmers and small entrepreneurs to supply larger firms with agricultural commodities and alternative bio-mass fuels.

### Angola Enterprise Programme

In Angola, UNDP is working with ChevronTexaco, the Government and local partners to implement the Angola Enterprise Programme. This initiative responds to the national priority of private sector development and recognizes the urgent need to support the micro and small enterprise sector as an engine for job creation and economic growth in the war-torn country. The Programme is being set up to support a range of activities aimed at strengthening small enterprises, including vocational training, business development services, microfinance and research into the informal sector, as well as the development of policies that help micro and small businesses thrive.

### India Partnership Forum

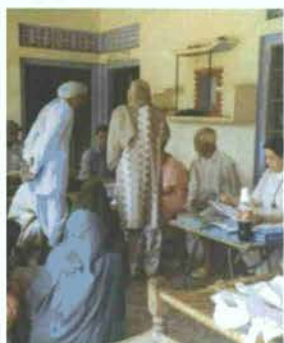
Building on the existing and deeply rooted sense of responsibility among Indian businesses, UNDP and the Confederation of Indian Industries have established the India Partnership Forum as a multi-stakeholder framework to promote dialogue and concrete development initiatives. The Forum is encouraging companies to move beyond philanthropy and contribute to a more proactive and sustained development agenda. A number of pilot projects have been initiated under Forum auspices to contribute to learning and create a portfolio of potential partnership opportunities.

*UNDP is involved in a range of other partnerships with the private sector concerning development issues such as democratic governance, environment and biodiversity protection, sustainable energy, information and telecommunications, HIV/AIDS and crisis prevention and recovery. By partnering with UNDP, companies can ensure that their good intentions are translated into effective and appropriate action.*

"Thriving markets and human security go hand in hand. A world of hunger, poverty and injustices is one in which markets, peace and freedom will never take root."

**Kofi Annan**

Secretary-General  
United Nations



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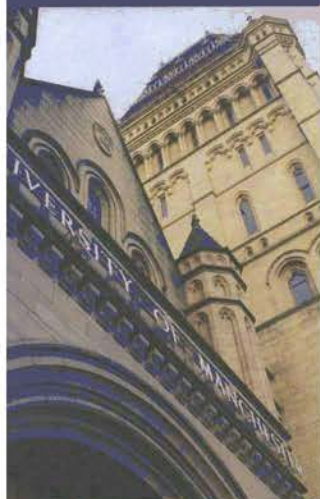
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Institute for  
Development Policy  
and Management





# Developing a global HIV/AIDS vaccine

Marie-Louise Chang & José Esparza, WHO-UNAIDS HIV Vaccine Initiative, Geneva, Switzerland

**A vaccine for HIV would not be a panacea to cutting growing infection rates, but it should be one of a whole range of approaches. Efforts must focus on encouraging greater personal responsibility. That would complement the vaccine development being carried out by WHO-UN AIDS HIV Vaccine Initiative.**

**T**he pressing need to speed up the development of an HIV/AIDS vaccine for the world encouraged the Joint United Nations Programme of HIV/AIDS (UNAIDS) and the World Health Organization (WHO) to establish the WHO/UNAIDS HIV Vaccine Initiative (HVI). HVI was established in 2000 with the mission: "promote the development, facilitate evaluation, and address future availability of preventive HIV vaccines, with a focus on the need of developing countries."

A large part of the efforts undertaken by HVI is the facilitation of trials in developing countries. This is central to the role of HVI for several reasons: first because the large majority of infections are occurring there, and therefore it is there that an effective vaccine would eventually be used and have the most benefit; and second because in order to produce valid and timely results, trials will have to be conducted in countries and populations where there is a high incidence of infection.

## Devastation of HIV/AIDS

Every hour 600 people become newly

infected with HIV/AIDS worldwide. Of these, 90 are children under the age of 15. Or put in another way, every single day, there are 14,000 newly infected people, of whom 5,500 are women, and 2,200 are children.

AIDS was first identified in the early 1980s, and in only 20 years it has become the most important infectious disease, and the most common cause of death in Africa. By the end of 2003 the number of people living with HIV/AIDS worldwide had reached between 36 and 46 million – of whom 95% lived in developing countries, particularly in Africa.

Stigma, ignorance and powerlessness are factors that play a large role in the transmission of HIV/AIDS. Fear and discrimination are major obstacles to effective HIV prevention and care. They prevent people from getting tested, acknowledging their HIV status, and seeking treatment for AIDS. A recent study cited stigma, fear of discrimination, disgrace to family and self, and futility to be among the most important factors in stopping people to reveal their HIV positive status. The majority of the subjects in the study

reported that the single major concern, after revealing their HIV positive status, was the expected negative reaction from friends and acquaintances.

## Infection can be prevented

HIV infection can be prevented by the wide spectrum of HIV preventive interventions available, such as the use of condoms, delaying the sexual debut of adolescents, abstinence, education, disbanding myths about HIV/AIDS, and discussing stigma and discrimination openly. For prevention to have the maximum impact it has to be integrated into a comprehensive response to HIV/AIDS. There are several success stories to mention, and the South African initiative LoveLife is one. This includes intensive national television, radio and print media campaigns, as well as free clinical health services, a network of support services, and campaigns at youth centres. The initiative promotes sexual responsibility through education to give young people increased self-confidence and knowledge about sex and life in general. The results have been positive: the initiatives have had a large impact in reaching young South Africans and making them aware of safe sex.

Uganda is another country that has managed to reduce the infection rate drastically. In Kampala, the major urban area in Uganda, the prevalence of HIV infection among antenatal clinic attendees increased from 11% in 1985, to 25% in 1990, and 29.4% in 1992. After that the level started to decline until, in 2000, it was 11.25%. The decline was achieved through AIDS control programmes. These give hope that preventive interventions can control the epidemic with messages about changes in behaviour.

## Responsibility is hard

The interventions we have available today are based on behavioural change, education and empowerment. They encourage the individual to take responsibility. But this is often a difficult message to communicate, especially amongst the more vulnerable sections of the population. Experience teaches

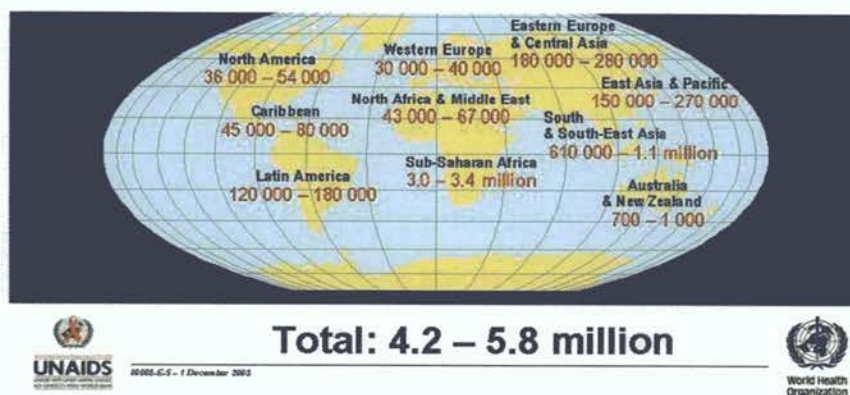


Figure 1. Estimated number of adults and children newly infected with HIV during 2003.

|                                               |                         |                                      |
|-----------------------------------------------|-------------------------|--------------------------------------|
| <b>Number of people living with HIV/AIDS</b>  | <b>Total</b>            | <b>40 million (34 – 46 million)</b>  |
|                                               | Adults                  | 37 million (31 – 43 million)         |
|                                               | Children under 15 years | 2.5 million (2.1 – 2.9 million)      |
| <b>People newly infected with HIV in 2003</b> | <b>Total</b>            | <b>5 million (4.2 – 5.8 million)</b> |
|                                               | Adults                  | 4.2 million (3.6 – 4.8 million)      |
|                                               | Children under 15 years | 700,000 (590,000 – 810,000)          |
| <b>AIDS deaths in 2003</b>                    | <b>Total</b>            | <b>3 million (2.5 – 3.5 million)</b> |
|                                               | Adults                  | 2.5 million (2.1 – 2.9 million)      |
|                                               | Children under 15 years | 500,000 (420,000 – 580,000)          |

Figure 2. Global summary of the HIV/AIDS epidemic, December 2003.





Figure 3. A factory worker in Amman, Jordan discusses AIDS prevention with government health worker.

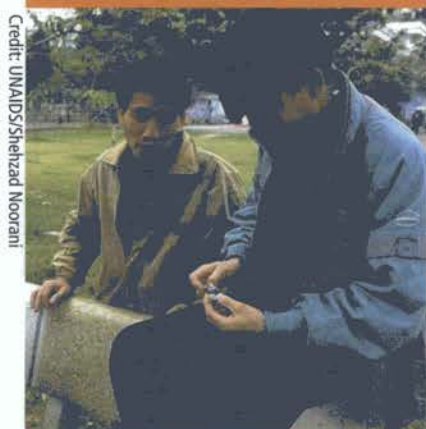


Figure 4. Young man with friends he met at a support group in Hanoi City. He says: "I don't plan to get married. I would rather sacrifice myself than give bad fate to any human being."

that it can be very hard for people to take and keep responsibility. As a result, many people hold the belief that a preventive HIV vaccine offers the best long-term hope to fight the epidemic and break the back of HIV transmission.

The aim is to develop a vaccine that is safe, highly effective and affordable. It is likely though that the first generation vaccines will not be highly efficacious. An HIV vaccine would not replace other preventive interventions against HIV/AIDS and other sexually transmitted diseases, but can only be an integral part of them. It is therefore crucial to continue to develop the other preventive interventions, and use the vaccine in conjunction with them. The vaccine is not a magic bullet. If vaccine recipients, believing they are fully protected against infection, engage in risky behaviour, they might well find that the bullet backfires.

### Vaccine development

To develop a successful HIV vaccine it is necessary to gather evidence from simultaneous trials of multiple candidate vaccines. An assessment can then be made of which vaccine concepts work the best. In order to test vaccine efficacy, the conduct of large scale 'phase three' trials are essential. It may also be necessary to



Figure 5. Children (<15 years) estimated to be living with HIV/AIDS at the end of 2003.

evaluate the efficacy of vaccines against different sub-types of the virus, different routes of HIV transmission (such as injecting drug users as against homosexual transmission), potential co-factors (such as sexually transmitted diseases), and the genetic variability of the host. All of these factors could influence the level of vaccine-induced protection. And lastly it is important to assess the efficacy and effectiveness of vaccines in the context of the different phases of the HIV epidemic.

### African AIDS Vaccine Programme

The high importance of facilitating trials in developing countries has prompted HVI to launch the African AIDS Vaccine Programme (AAVP). This was established to enhance the efforts of vaccine research and development in Africa. The AAVP is a network of Africans – scientists and community members – working to promote and facilitate HIV vaccine research and evaluation throughout the Continent, through capacity-building and regional and international collaboration. AAVP supports, and advocates, a coordinated effort to contribute to the global HIV vaccine development effort, to ensure that appropriate vaccines are developed and made accessible in Africa in the shortest possible time.

Since its inception in 2000, the AAVP has received support from the Canadian Fund for Africa and the Swedish International Development Agency (CSIDA/SAREL), and is initiating activities in six areas: clinical and laboratory aspects, population studies, advocacy, national strategic planning, and community preparedness.

### Together we can

As with other major public health and scientific challenges, it has become evident that individual initiatives and programmes cannot tackle every separate issue in isolation.

An article in the journal *Science* called for the establishment of a: "global HIV vaccine enterprise." The vision of the enterprise would be to create an alliance of independent agencies united by the moral commitment to contribute to implementation of a commonly agreed global strategic plan. This plan is currently being developed, to provide a new paradigm for HIV vaccine research and development. Such a boost is necessary if a much-needed HIV vaccine is to be developed within the next few years.

### ABOUT THE ORGANISATION AND THE AUTHORS

The WHO-UNAIDS HIV Vaccine Initiative (HVI) is a joint activity of the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

Dr. Jose Esparza is the Coordinator of the WHO-UNAIDS HIV Vaccine Initiative, based at the World Health Organization (WHO), in Geneva. He joined WHO in 1986, and since then he has worked mostly on issues related to HIV vaccine research and development. Previously, he was the Chair of the Centre for Microbiology and Cell Biology at the Venezuelan Institute of Scientific Research, and Visiting Professor at Duke University Medical Centre.

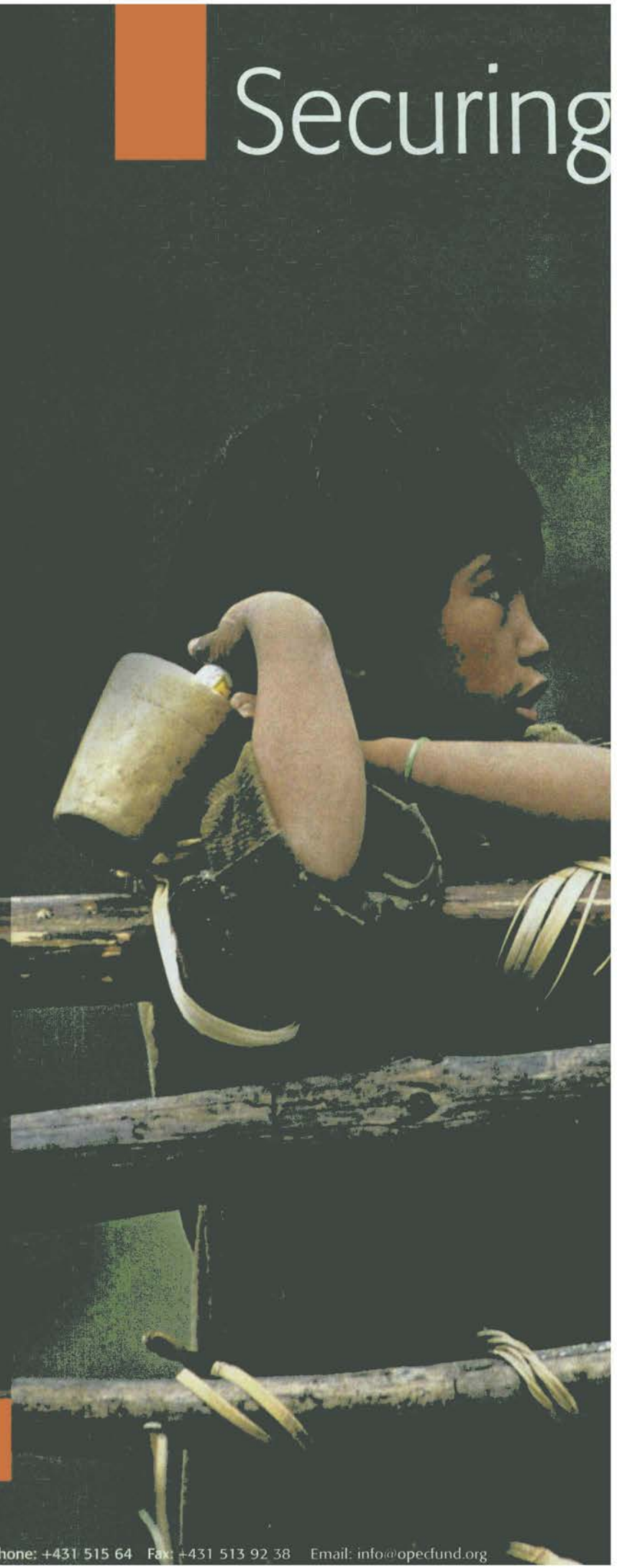
Marie-Louise Chang is a Technical Officer at the WHO-UNAIDS HIV Vaccine Initiative. She has broad public health and HIV/AIDS-related research and policy experience. She is a keen advocate of ensuring access to future vaccines and has been involved in various research projects to promote this. WHO-UNAIDS HIV Vaccine Initiative (HVI)

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E-mail: hvi@who.int  
Web site: www.who.int/HIV-vaccines



# Securing

A black and white photograph of a woman in profile, pouring water from a large, rounded metal pot into a smaller container. She is wearing a headscarf and a patterned garment. The background is dark and textured.

With almost three decades of experience to draw upon, it is no accident that four principles form the cornerstone of the OPEC Fund's operational philosophy. Raw experience has shaped the way we think and defined the way we work.

**Cooperation** is our watchword. We know that everyone has their limitations. That's why we believe it's so important to join forces with others. Collaboration with like-minded agencies, whether sister institutions, regional development banks, UN agencies or NGOs, allows us to pool resources, skills and expertise and strengthens the impact of our aid effort.

**Partnership.** At the Fund we don't just talk about beneficiaries, we talk about *partners*. Over the years we have developed intimate ties with most of the countries we work with. These alliances are built on foundations of equality and solidarity. After all, we are an organization of developing countries ourselves. So, we have the inside track when it comes to the problems associated with poverty.

**Flexibility.** Another watchword, and a vital attribute for the dynamic process we are involved in. Over time, we have seen the needs of our partners shift and change as new priorities come to the fore. For some, the focus is on basic social infrastructure. For others, it's transportation or agriculture. Yet others are faced with immediate, critical needs such as food aid or emergency relief. And, more recently, there has been a growing emphasis on promoting the private sector. But, whatever the requirements, we have developed the flexibility to accommodate them.

**Responsiveness.** As the face of development evolves (and it does so rapidly), so do the mechanisms to facilitate it. Such unpredictability demands awareness and an ability to absorb change. At the Fund, we move easily with the times. We played a key role in shaping the HIPC debt relief initiative, for example. And our six-year-old Private Sector Facility is already reaping results. We are also actively engaged in the battle against HIV/AIDS. And just last year we rushed US\$20 million in food rations to starving communities in Africa.

For the 2.8 billion poor subsisting on less than US\$2 a day, the future may seem an uphill struggle. With partners like the OPEC Fund, it is a struggle they do not face alone.

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has been at the forefront of the fight against poverty. Working hand-in-hand with needy communities, we've helped build schools, health centers and roads. We've constructed water supply networks and irrigation systems. And we've provided farmers with the technology and training they need to grow strong, abundant crops.

At the OPEC Fund we believe in *participatory* development – in giving the poor a sense of ownership and control over their own destiny.

We believe in capacity building and training, and the transfer of know-how and skills. In short, we believe in *empowerment*.



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# Supply crisis in reproductive health

**Caroline Jane Kent**, German Foundation for World Population (DSW), Hannover, Germany

**Population growth has a major influence on sustainable development. The means to allow people to take control of their reproductive rights include physical supplies such as condoms and pills, together with information and education. The present supply is only a fraction of what is needed. And demand is growing fast.**

If it hadn't been for her neighbour, June, Eden's life would probably be very different than it is today. Two years ago, June talked to Eden and her husband about family planning, modern contraception methods and how together Eden and her husband could determine how many children they wanted to have.

## A careful balance

Eden and her husband decided to use modern contraceptives and to plan their family. They now have two children and would like to delay the birth of their third child for another two to three years. June told Eden and her husband that by increasing the periods between the birth of each child, Eden would be much healthier and less likely to suffer complications during childbirth.

Thanks to their small family by Ethiopian standards, Eden's family is relatively affluent; both children attend a local school and Eden works part time as a family planning counsellor telling other young women about the benefits of choosing when to have children.

Like thousands of other women in Ethiopia, Eden can only afford heavily subsidised contraceptives. Once a month Eden makes the two-hour trip to Addis Ababa to pick up her pill from an NGO-run family planning clinic for the upcoming month. When Eden's clinic is unable to hand out her usual oral contraceptive, Eden has very little alternative. She can either risk becoming pregnant, or take the condom that she has been offered instead and try and persuade her husband to use it. Either way, her carefully balanced life improvement is jeopardised.

Unfortunately, Eden's case is all too common and not only in Ethiopia.

## The supply shortage

World-wide, millions of men and women in developing countries do not have sufficient access to affordable or donated supplies and commodities – contraceptives, condoms and other materials – needed for family planning, HIV/AIDS prevention and other vital sexual and reproductive health care services.

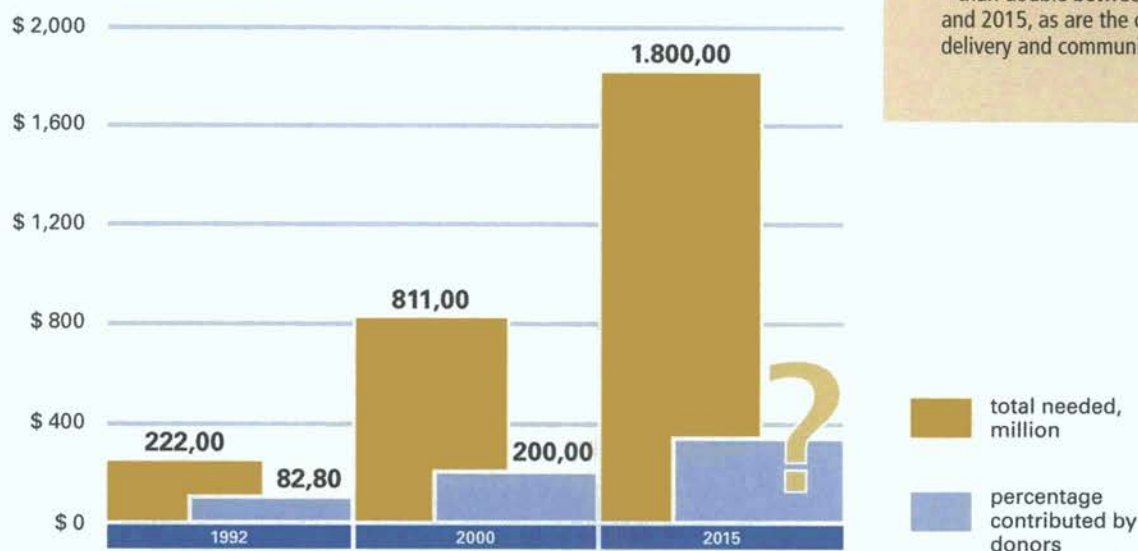
What is missing, is not only oral contraceptives, but also condoms, emergency contraception, vitamins, HIV testing kits and surgical gloves to name but a few. Without these commodities reproductive health care services cannot be provided.

**World-wide, millions of men and women in developing countries do not have sufficient access to affordable or donated supplies**

A lack of funding coupled with a greater demand for the provision of free and heavily subsidised commodities, is at the core of the problem. According to the United Nations Population Fund (UNFPA), the money needed to buy contraceptives alone is projected to rise from \$572 million in 2000 to \$1.25 billion in 2015. Already, less than a third (27%) of these costs are born by bilateral and multi-lateral donors.

## Actual and Projected Costs of Supplies needed for Family Planning and HIV / AIDS Prevention

(contraceptives and condoms for Developing Countries)





While the funds needed to buy condoms and contraceptives are increasing, donor commitment is waning, widening the gap between the need for donated supplies and the available funding.

### Not just more money

A number of factors have contributed to the current and projected shortage of condoms, contraceptives and other reproductive health supplies.

Commodities have not gone out of stock overnight. Essentially, and ironically, the greater demand for reproductive health supplies is due to decades of successful family planning and sexual and reproductive health programmes. Non-governmental organisations, private sector initiatives and public sector providers have advocated the use of modern (as opposed to natural) contraceptives, such as hormonal injections, oral contraceptives, and spermicides. More importantly, the devastating spread of HIV/AIDS, with no cure in sight, has left billions of people in need of protection.

According to a survey carried out by Population Action International (PAI), eight billion condoms – free of charge – are needed every year in developing countries. The actual supply is only an eighth of that sum. Even conservative

projections forecast at least a doubling of the current demand within the next few years.

In the next ten to fifteen years, the generation of young people (aged 15–24) will be the largest ever and at the same time, there will be the greatest ever number of men and women in their reproductive years. This alone will increase the number of contraceptive users by 20%.

**Eight billion condoms – free of charge – are needed every year in developing countries. The actual supply is only an eighth of that sum**

Other factors besides a lack of funding and an increasing number of clients also contribute to shortages.

### Weaknesses at both ends

Weak logistics and distribution compounded by a lack of commitment from developing countries put a strain on scarce resources. Shipments of contraceptives and condoms might reach the capital cities of developing countries but not necessarily the rural areas where they are most needed. Condoms in particular need careful

storage and protection from sunlight and heat, whilst oral contraceptives need to be distributed before their use-by date. Clients like Eden rely on a consistent supply of contraceptives of the right quality at the right price. In order to ensure what is called “Contraceptive Security,” the receiving and distributing actors need skills in forecasting demand, storage and shipment.

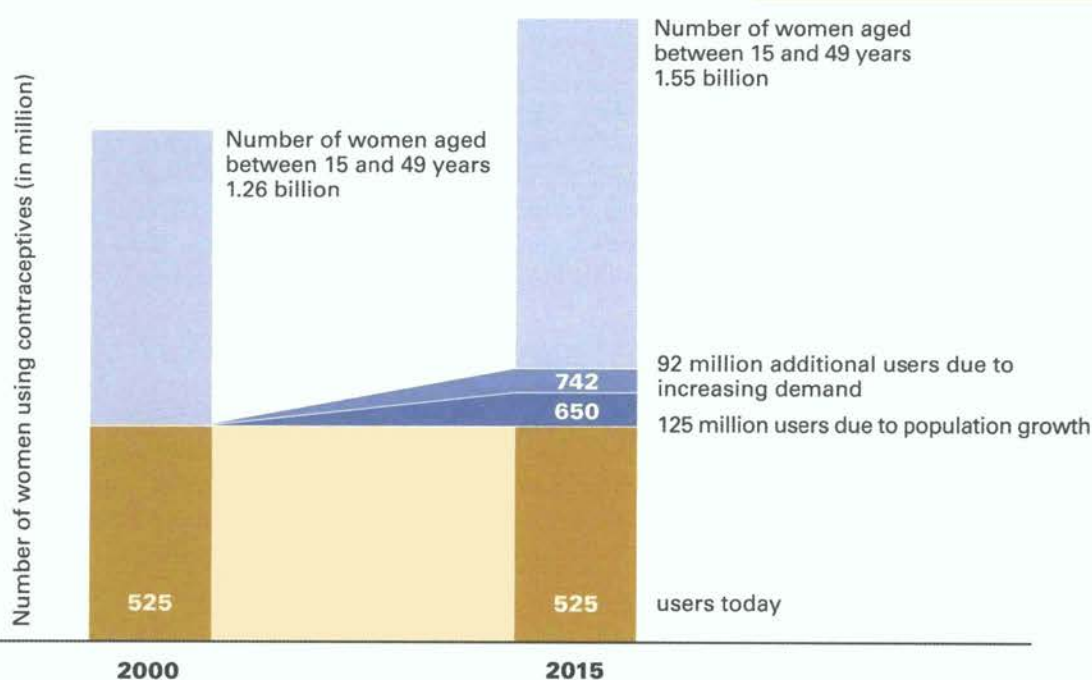
On the donor side, there are also weaknesses. Although the procurement and supply of contraceptives and condoms is only undertaken by a handful of multilateral and bilateral donors, there is no global mechanism with which these actors can share their data and information on procurement and shipment. In the worst case, this could result in an oversupply in one region or country and a shortage in another. Erratic, declining support and little coordination hinder contraceptive security and ultimately undermine the credibility of programmes in the field.

The manufacturing capacity to meet current and forecasted needs for contraceptives and condoms already exists. However, reproductive health supplies are seldom produced in developing countries, meaning that the majority needs to be imported.

## Demand for Family Planning on the rise

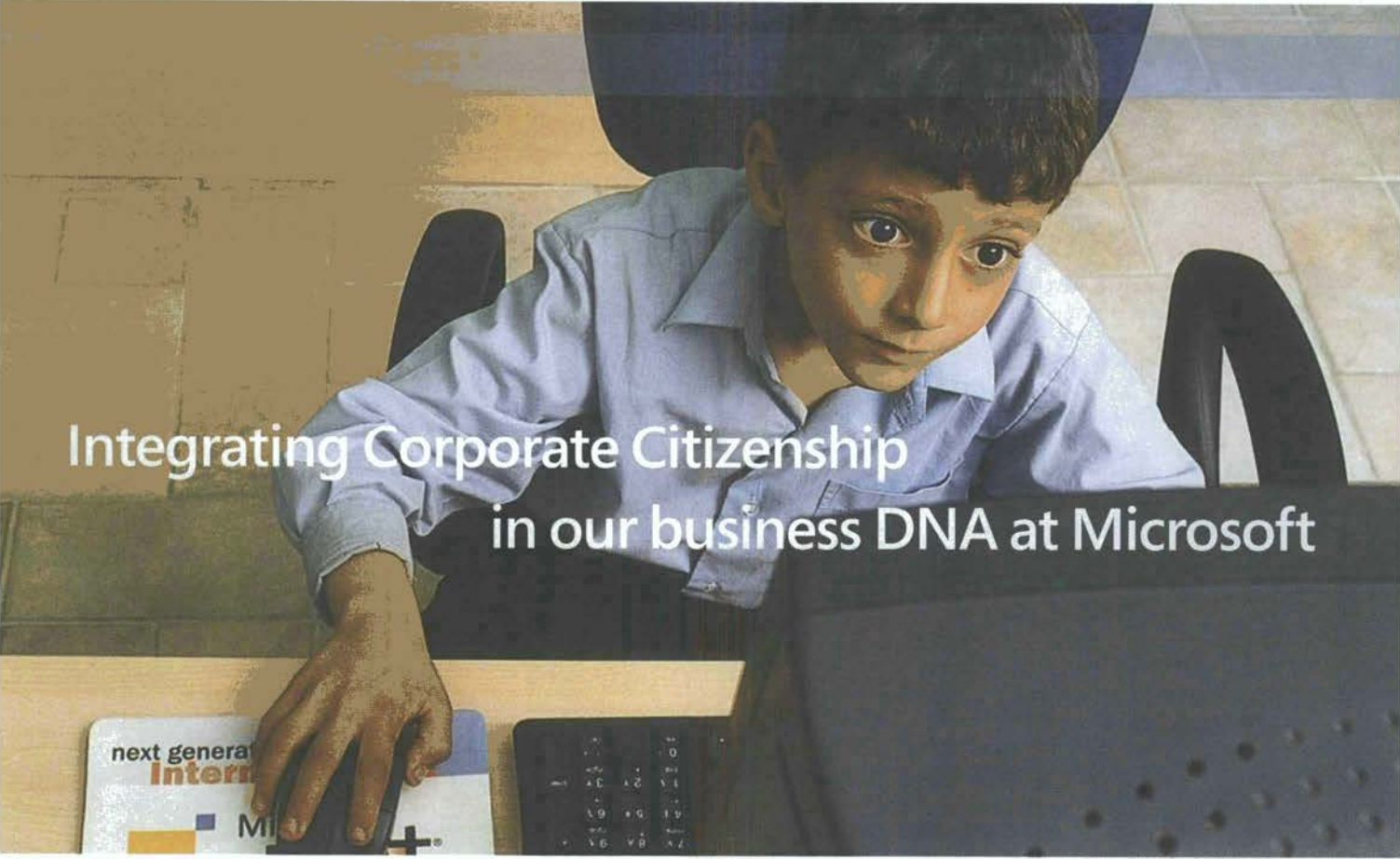
Contraceptive Prevalence Rate in Developing Countries

Population growth in the developing world means current and projected demands for reproductive health supplies are without precedent.



Source: UN Population Division, World Population Prospects: The 1998 revision





## Integrating Corporate Citizenship in our business DNA at Microsoft

As we have grown to become a global industry leader, our responsibilities as a corporate citizen and a responsible industry player have grown in parallel. In recent years we've taken several steps to integrate principles of corporate responsibility into all aspects of our business activities and internal working practices.

As we acknowledge that "it takes more than great products to make a great company", we've extended our original business vision – a PC on every desk and in every home – to helping people and businesses everywhere realise their full potential through information technology.

In our effort and desire to continue improving our partnership with society and our relationships with our stakeholders on an ongoing basis:

- We've developed Standards of Business Conduct for employees to maintain high standards in dealing with customers and partners
- We've produced our first Global and EMEA Corporate Citizenship reports on how we understand our role of business in society and how we put our values and mission into practice everyday
- We've redoubled our efforts to ensure a safer and more secure computing experience through our own research and development and through partnerships with governments and the IT industry
- And we've deepened our commitment to contribute to the shared societal goals of education and life-long learning for all, through our Partners in Learning programme to support class-room education and teachers, and our Unlimited Potential programme to support IT skills learning in the community





- We're proud that our commitment to diversity and to ensuring a high-quality working environment has led to best workplace nominations in many markets
- And we continue to work, as we have for the past fifteen years, to build accessibility features into our software

We recognise that in order to fulfil our mission "to help people and businesses around the world to realise their potential" we need to tackle some of today's big challenges in society. One of these is the need to help eliminate technology illiteracy and exclusion. We have a strong belief that success can be brought forward by combining enhanced IT access through community technology and learning centres (CTLCs), with the provision of localised curriculum development and IT skills training, software donations, community leadership and partnerships. This is what made us develop and launch Unlimited Potential, whose mission is to provide underserved groups and communities with lifelong-learning opportunities.

The focus of the programme is as varied as each community. Its focus depends on the need of the country and of the specific community. It includes children, unemployed youth, homeless, people with disabilities, women, entrepreneurs, elderly people, and refugees. Today in the Europe Middle East and Africa (EMEA) region we are supporting fifty five projects in thirty five countries, involving over one hundred partners and over three hundred CTLCs.

We work in close partnership with Microsoft's Education Solutions Group to service a "connected learning community" with an holistic, sustainable and forward looking approach.

One example which shows our commitment to work in partnerships for education, societal and economic development through ICT is Namibia. Microsoft has joined the Namibian government in a strategic agreement to provide widespread access to ICT, education and skills training and create the foundation of a sustainable information society for the country. This partnership effort, which involves NGO's, donors and other companies, is a pathfinder for building a sustainable strategy for ICT in education which can be replicated in other African countries.

As the program unfolds, we have started to learn from some of the key ingredients of digital inclusion:

- **Partnerships for Access to PCs:** We're assisting with training and support for a Government-led PC Refurbishment Centre that refurbishes, maintains and distributes donated PCs from across Europe to Namibia's schools, NGOs and community learning centres;
- **Bringing Connectivity:** We're working with telecom partners World Space and Mindset on a pilot for thirteen schools and three community centres to test a low-cost/low-bandwidth solution to network the schools and centres into a first-of-its-kind connected learning community for Namibian learners and educators;

- **Education for the wider community:**

We're working with the government to establish six community learning centres to form hubs for technology access, business services, basic connectivity needs, and IT training support for all members of the community, including people with disabilities;

- **Training the trainers:** We're establishing a series of IT Academies to provide teacher and IT technician training; and we're working with the Polytechnic University helping to train IT students to provide helpdesk services to students and educators in Namibian schools and CTLCs;

- **Easy access to the latest technology – the Microsoft Learning Suite:** we have built an integrated set of tools to enable Teachers in developing countries to use Microsoft technology with a minimum degree of technical ability.

The people and communities of Namibia, together with their partners, have already achieved a lot. At Microsoft we're committed to supporting communities everywhere to realise their full potential through IT.

*For more information about Microsoft EMEA Community Affairs and Citizenship initiatives, please contact: [emeacsr@microsoft.com](mailto:emeacsr@microsoft.com)*



### The Supply Initiative: meeting the need for reproductive health supplies

A newly established global focal point for supply issues related to sexual and reproductive health, the Supply Initiative focuses on catalysing dialogue and co-ordination amongst diverse stakeholders.

Its first phase activities include:

- Setting up the RHInterchange, a web-based information system that, in its first phase, consolidates procurement data from the International Planned Parenthood Federation (IPPF), the United Nations Population Fund (UNFPA) and the U.S. Agency for International Development (USAID);
- Facilitating a forum for improved coordination among donors;
- Mobilising resources and raising awareness and commitment amongst donor country governments; and
- Setting up a global communication network for supply issues.

The Initiative is funded by the Bill and Melinda Gates Foundation, the William and Flora Hewlett Foundation, the David and Lucile Packard Foundation, and the Wallace Global Fund. The lead implementing agencies are Program for Appropriate Technology in Health (PATH), Population Action International (PAI), John Snow International Research and Training Institute (JSI R&T) and the German Foundation for World Population (DSW).

For more information on the Supply Initiative, please visit: [www.rhsupplies.org](http://www.rhsupplies.org).

Restrictive policies, import barriers and taxes on supplies provide further obstacles to the allocation of supplies.

The consequences are devastating, as the following calculation by United Nations Population Fund (UNFPA) shows. For every shortfall of one million dollars in contraceptive supply, there are:

- 360,000 unintended pregnancies;
- 150,000 additional induced abortions;
- 800 additional maternal deaths; and
- 11,000 additional infant deaths.

#### Commitment and collaboration

As mentioned, additional funding for contraceptives and condoms alone will not lead to contraceptive security. Greater awareness amongst all actors followed by increased collaboration and commitment is imperative to ensure that sexual

and reproductive health care providers are equipped to meet the needs of vulnerable people, and in particular to arm them to prevent the devastating scourge of AIDS becoming worse.

A number of bilateral and multilateral donors have shown their concern and willingness to increase financial support to procure the needed supplies. Recipient countries also need to contribute their share.

By creating a favourable environment for the import and distribution of commodities, governments can positively influence contraceptive security. In Brazil for example, the government removed tariffs and retail taxes from condoms. By doing so, the price of a condom dropped considerably, while the sales increased.

A key role in ensuring that the right supply gets to the right client is assumed

by the social marketing sector, which fills the gap between donated supplies and fully priced contraceptives and condoms. Social marketing programmes can react more flexibly to demands, and serve more affluent clients. However, in order to ensure that the commercial sector does not have to compete with donated supplies and social marketed commodities, these actors need to share information and target their respective clients more efficiently.

### First steps

Information sharing and collaboration is one pillar in working towards contraceptive and condom security, alongside funding and favourable policies. Consequently, it forms one of the key approaches of the Supply Initiative, which seeks to bring together diverse actors, including contraceptive and condom procurers, civil society stakeholders and social and commercial marketing representatives, to build upon their accomplishments and create synergies.

In its efforts to ensure that developing countries meet their long-term sexual and reproductive health needs, the Supply Initiative has begun establishing the RHInterchange, a web-based tool to co-ordinate efficient procurement and exchange vital shipping information.

For more than a decade, civil society programmes and projects have provided sexual health education, HIV awareness campaigns, family planning advice and other basic health care services. As a result the need and demand for these services has risen. Without adequate supplies, in particular of contraceptives and condoms, the gains and credibility of these services are at risk.

#### ABOUT THE ORGANISATION

DSW is a private foundation, committed towards a sustainable development of world population. DSW especially supports measures in developing countries that promote a humane slowing of population growth, improve the quality of life of young people, empower women in society, and limit the spread of HIV/AIDS.

The mission of the Supply Initiative is to ensure that every man and woman, regardless of age, can exercise his/her right to choose, obtain, and use quality affordable reproductive health supplies. Its goal is to strengthen and maximise the availability and efficient use of human, institutional and financial resources for reproductive health supplies.

#### ABOUT THE AUTHOR

Caroline Jane Kent manages the communication network of the Supply Initiative, including its web site ([www.rhsupplies.org](http://www.rhsupplies.org)). She has been working for the German Foundation for World Population (DSW) for four years facilitating a wide range of information and communication networks.

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# The weight of water

Tamsin Maunder, WaterAid, London, UK

**Water and sanitation are vital in development. Yet millions of people without these essential services are trapped in the spiral of poverty and disease. Much more work needs to be done to reach water and sanitation targets but progress has stalled. Policy makers need to address the issues to provide these basic human rights.**

“Before there were a lot of diseases here. We had to walk to the stream to collect our water, which used to take us at least two hours. At this time it was very difficult for us to keep ourselves and our clothes clean. And when we had to use the bush as our toilet the dogs would follow us and eat all of our waste. Then they would come back and lick all of the plates and go near our food. This spread lots of germs.”

These are the words of Maklena Bukowa who lives with her six children in Choobana village in the Monze district of Zambia. With help from WaterAid she now has a protected well in her village where she can collect safe, clean water for her family whenever she wants. “We are proud to be involved in this scheme and have seen a big reduction in diarrhoea here since the project started,” her friend Lucenia Nuvana continues:

“We had to go to the stream about three times a day – morning, afternoon and evening. Now that we have the well we have much more time. We couldn’t wash properly before as people used to have to restrict the amount of water they used, but now we have enough water. Now we can wash and clean the children, and when the children use the latrine they always wash their own hands.”

## Water is Life

It is hard to imagine life without clean water flowing from your tap, or somewhere safe and clean to go to the toilet. Yet the daily reality for over a billion people around the world is that they have to walk miles to the nearest water hole to collect their family’s water. The water is often dirty and unsafe to drink like Maklena and Lucenia’s used to be – but there is simply no other choice. Where there is nowhere safe to go to the toilet, communities are further exposed to disease and lack of privacy.

Without safe water and sanitation nearby, people find it impossible to escape the downward spiral of poverty and disease.



Figure 1. Over one billion people collect water from unsafe sources like this river in Choobana village, Zambia.

A child dies every 15 seconds from preventable water related diseases as a result of poor water and sanitation.

WaterAid works to help people like Maklena and Lucenia provide themselves with clean water and effective sanitation. It promotes good hygiene practices so that communities gain the maximum health benefits from their projects. WaterAid believes that its projects provide the key to poverty reduction and sustainable development. WaterAid knows that gaining access to safe water and sanitation has far reaching benefits. Such access not only improves health but also education, social standing, wealth and personal empowerment.

As Lucenia explains, clean water has not just improved her family’s health and given her more time to work it has also helped her children too. “The children are no longer forced to help us work so much. Some used to go to school, but others couldn’t because they had to work and collect water instead. Now they all go to school. They even have time to play as well.”

## Review of findings

In 2001 WaterAid produced a report called Looking Back that looked at a number of water supply and sanitation projects carried out by WaterAid and its partners in Ethiopia, Ghana, India and Tanzania. The results were astonishing and showed that water supply and sanitation projects have impacts on people’s lives that extend far beyond the expected improvements in health. In 2001 WaterAid produced a report called Looking Back that looked at a number of water supply and sanitation projects carried out by WaterAid and its partners in Ethiopia, Ghana, India and Tanzania. The results were astonishing and showed that water supply and sanitation projects have impacts on people’s lives that extend far beyond the expected improvements in health. The impacts included significant improvements in household income levels and security of livelihoods. Increased school attendance was also seen, along with better child care, teacher enrolment, social and cultural benefits such as reductions in stress levels, increased status and self-esteem, better family and community relations, more family planning and increased ability to observe religious rites and customs. People are healthier and do not have to spend as much money on medication. And they are able to achieve a better quality of life and escape the spiral of poverty.



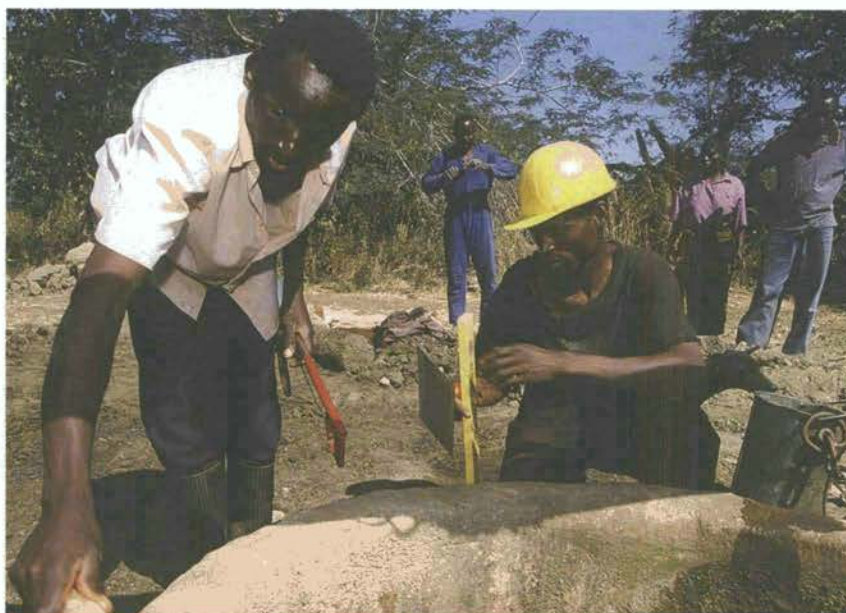


Figure 2. People centred projects are vital to ensure there are long term benefits. Here, the community from Choobana, rehabilitate their second well.

### Water and sanitation targets

Yet water and sanitation, some of life's most basic necessities, and since November 2002 recognised human rights, are not being prioritised. WaterAid was delighted when, at the Johannesburg World Summit on Sustainable Development in 2002, all governments committed to targets to halve the proportions of people without basic sanitation by 2015, matching the water target set in 2000. However since Johannesburg progress has stalled – and if things continue at the present rate it would take Africa over 30 years to achieve the water target, and the sanitation target will never be met. The UK Government, which led the way in championing these issues at the Summit, has lost momentum on these issues.

### Flush out poverty

Because of this WaterAid has launched a new campaign called Flush out poverty ([www.flushoutpoverty.org.uk](http://www.flushoutpoverty.org.uk)) to ensure that the UK Government match their words with action, resume their leadership role and prioritise water and sanitation for the world's poorest people.

WaterAid believes that the water and sanitation targets are achievable. But, they are only achievable if new investments are specifically targeted at providing services to poor communities that are currently without water and sanitation facilities. To reach the targets there needs to be:

- More money invested from all sources to be spent on sustainable improvements for the poorest; and

- Priority given to water and sanitation by developing country governments in their poverty reduction plans, and by international agencies and donor countries.

The way the money is spent is a crucial point to the campaign and one backed up by WaterAid's projects and research. WaterAid believes that when combined, water, sanitation, and hygiene education provide people with a better quality of life. By focusing on projects with these three elements, health benefits are maximised and the results are long lasting and wide reaching.

All of WaterAid's projects use technology that is low cost, appropriate to the local financial and geographical conditions, and within the technical capacity of the benefiting community to operate and maintain.

**When combined, water, sanitation, and hygiene education provide people with a better quality of life**

WaterAid works with some of the poorest communities in 15 countries in Africa and Asia. These communities always have an active role and take responsibility for projects to ensure the benefits are sustainable. Communities are involved from the planning stage, through to building, maintaining and managing the schemes. Each community will contribute what they can afford to the scheme, whether it is money or labour.

In Choobana, both Lucenia and Maklena are now trained latrine builders. "We have helped people here

### Financing water and sanitation targets

The amount of investment required to achieve the millennium development goals is the subject of much debate. Estimates have varied from making no increase in present spending levels of \$14bn per year, to more than doubling this to \$30bn. However, in countries where total investment requirements have been calculated, such as Uganda or Nepal, the picture is unambiguous: annual funding gaps exist that prevent the targets for water and sanitation being achieved, and more funding is needed. The latest international report on the subject, Financing Water Infrastructure, called for a doubling of financing from all sources.

Global investments in water and sanitation come from four main sources: national governments, external aid, international private sector contributions and the domestic private sector. External aid is a significant component of financing in the poorest countries in Africa and Asia.

The average percentage of aid budgets allocated to water and sanitation from G8 countries is currently 5%. (The G8 countries are those with the largest economies in the world: Canada, France, Germany, Italy, Japan, the United Kingdom, the United States, and the Russian Federation). Therefore, to meet the recent demands for a doubling in spending, the G8 members, including the UK, should allocate 10% of their aid budgets to water and sanitation.

An increase of this kind would not only be significant in terms of finance but would also send a clear message of the commitment that the UK Government has to this issue.



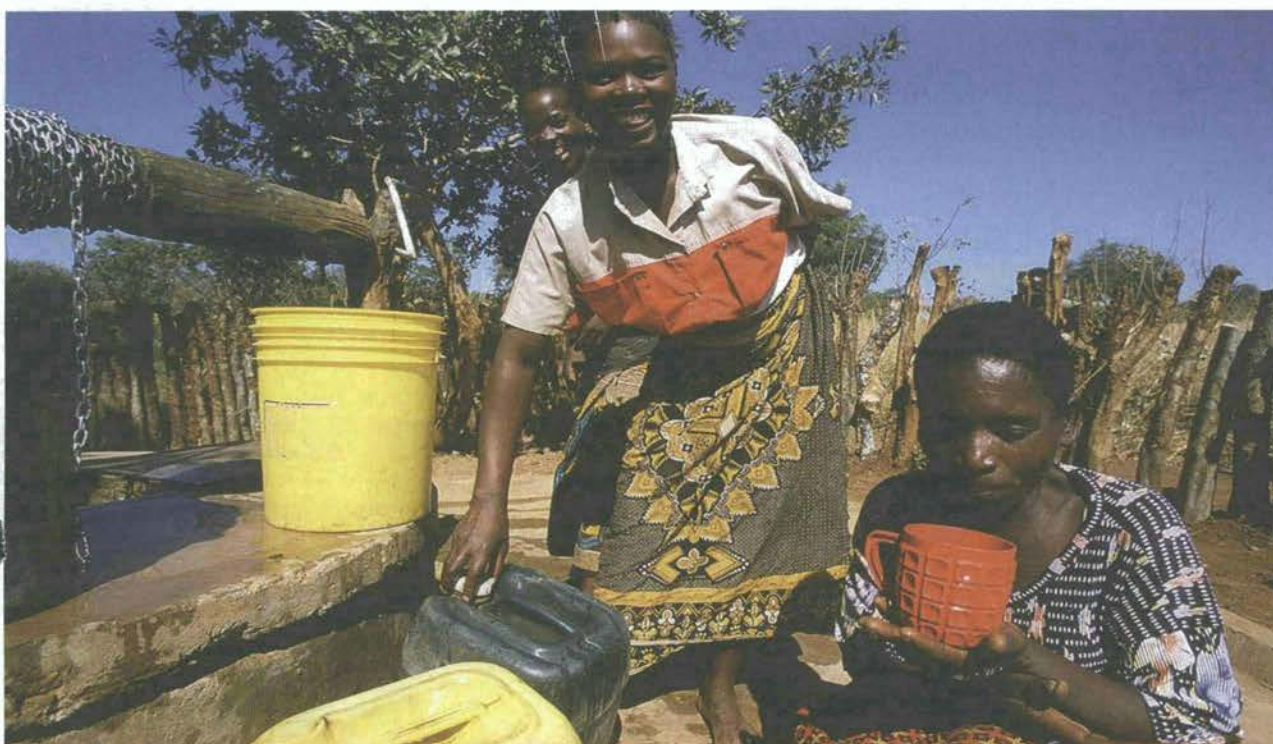


Figure 3. The joys of fresh water.

to build latrines”, explains Lucenia. “We asked to be trained and now we talk about the importance of latrines. Then when someone wants a latrine they dig a pit for it, following our guidelines. Then we check that it is the right size and that the owner has all of the right materials they will need. For those people who can’t afford bricks we promote other types of latrines. We encourage people to collect logs or grass for the structure instead.”

“We check that the bricks they have made are correct and also check the other materials that the householder contributes,” Maklena continues. “Then we help them to construct their latrine. For example we help to mix the concrete and then demonstrate how to build the latrine.”

“We feel proud to be able to do this. It means that we aren’t reliant on other people and that we don’t have to wait for anyone to get on with things and that is good,” Lucenia says.

Another of WaterAid’s principles is to work through local partner organisations. These partners carry out the day-to-day management of projects. They have a wealth of local knowledge and skills. WaterAid supports these partners and encourages them to grow into independent organisations, replicating WaterAid’s working practices and programmes. In this way they too can carry out projects, reaching other areas of need and helping more people than WaterAid could alone.

However, the numbers of people without access to safe water and sanitation are so vast that WaterAid recognises that it can only feasibly help

**Governments and international agencies must prioritise water and sanitation so that the necessary resources are committed to this huge task. This requires changes in both policy and practice**

a fraction of this number through the water, sanitation and hygiene projects it funds. To achieve the targets 384,000 people need to gain access to basic sanitation every day until 2015 and 280,000 need to gain access to safe drinking water every day until 2015.

Therefore, governments and international agencies must prioritise water and sanitation so that the necessary resources are committed to this huge task. This requires changes in both policy and practice. Therefore, in addition to supporting water, sanitation and hygiene projects WaterAid aims to influence the policies and practices of decision-makers, donors and the public with the ultimate aim of achieving its vision of a world where everyone has access to safe water and effective sanitation.

#### ABOUT THE ORGANISATION

WaterAid is the UK’s only major charity dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world’s poorest people. WaterAid works by helping local organisations set up low cost, sustainable projects using appropriate technology that can be managed by the community itself. WaterAid also works to influence policy in this area.

Tamsin Maunders is WaterAid’s Communications Services Manager.

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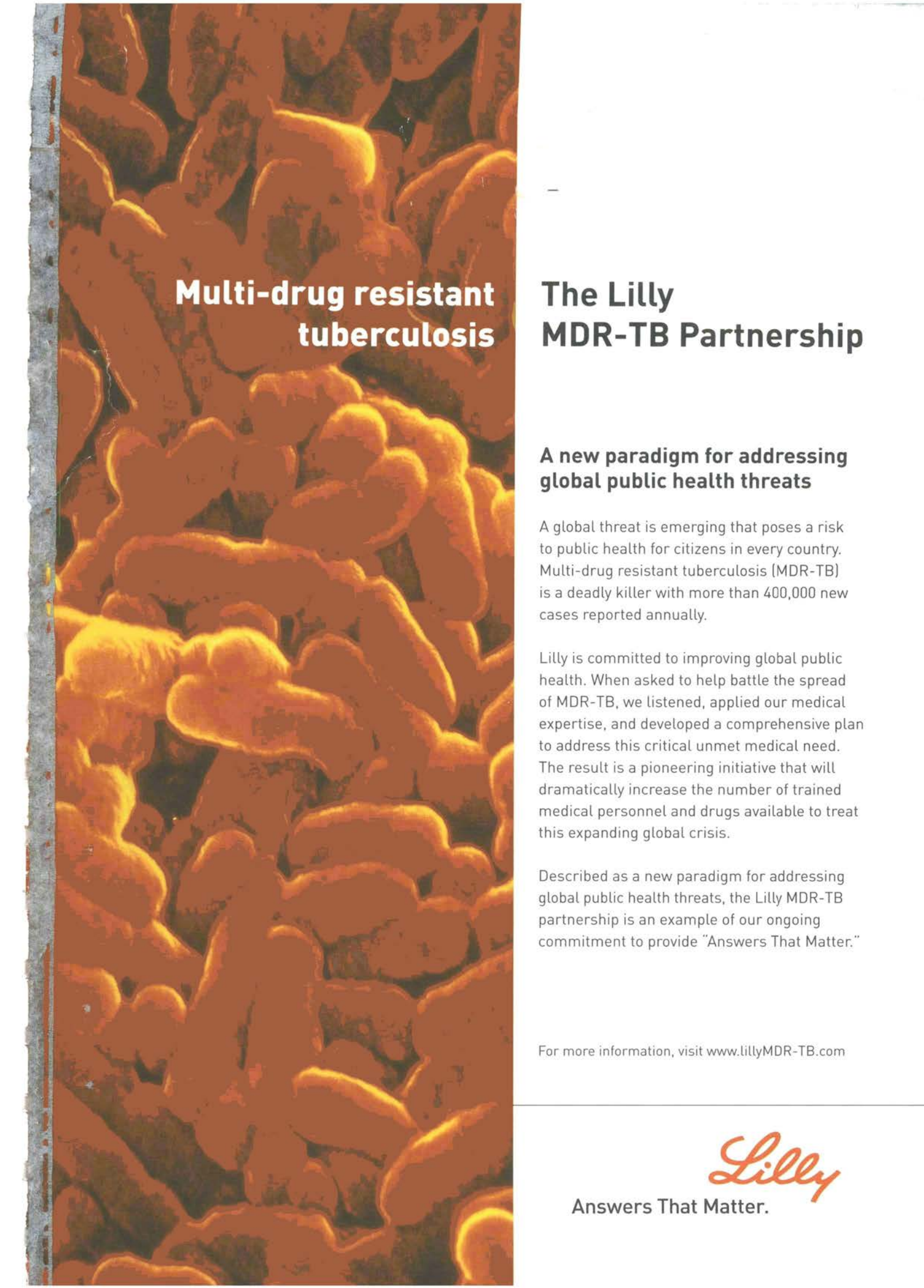
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## Multi-drug resistant tuberculosis

## The Lilly MDR-TB Partnership

### A new paradigm for addressing global public health threats

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Described as a new paradigm for addressing global public health threats, the Lilly MDR-TB partnership is an example of our ongoing commitment to provide "Answers That Matter."

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