G8 Summit 2006
Issues and Instruments

St Petersburg, 15-17 July 2006

G8 Summit 2006

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G8 Arena

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Published by
Newsdesk Communications Ltd
130 City Road
London, EC1V 2NW, UK
Telephone: +44 (0) 20 7650 1600
Fax: +44 (0) 20 7650 1609
www.newsdeskmedia.com

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Repro ITM Publishing
Printed by Buxton Press
ISBN 1 905435 17 7

Editorial: Agora Projects Ltd
Editorial enquiries to
Agora Projects Ltd, Adam House,
7-10 Adam Street, London WC2N 6AA
Tel: +44 (0) 20 7520 9329 Fax: +44 (0) 20 7520 9326
info@agoraprojects.net

Special thanks to Madeline Koch and Victoria Panova

President Vladimir Putin on the 2006 G8 Summit

This is Russia's first G8 Presidency. Its themes are international energy security, the fight against infectious diseases, and education. We chose these themes as priority ones, in part because they can improve the quality of life of millions of people and, as a whole, ensure that humanity develops in a stable and positive way.

International energy security

We want to form a stable system of legal, economic and political relations that ensures a reliable demand and stable offer of energy resources on the international market.

We consider one of the main tasks to be further investment in, as well as the incorporation of new technologies into, the extraction process, transport and use of traditional energy resources.

Global energy security is impossible without the development of nuclear energy. In connection with this we are putting forward the idea of creating an international network of nuclear centres. Their goal is to provide new consumer countries with nuclear energy for peaceful purposes and simultaneously to ensure technical

safety and international monitoring over non-proliferation.

Russia supports the improvement of the quality of protection for the major components of the world's energy infrastructure. This implies protecting them both from technical threats and the threat of international terrorism.

Infectious diseases

We consider that one of the international community's strategic tasks is the fight against infectious diseases.

Today's pharmaceutical industry provides us with an effective means both for preventing and for treating disease. An international system designed to monitor large-scale diseases is developing actively. Along with this, developing countries' expenditure in the health sector is still far below their real needs and this means that millions of people do not have access to many vaccines and medicines. Even the richest states are not able to lower the levels of some of the most infectious diseases such as AIDS or tuberculosis. Recently the world was faced with an outbreak of avian flu. And we must acknowledge that the international community is not always able to react to epidemics in a prompt and effective way.

We consider it important to observe the obligations that the G8 has already taken on concerning the struggle against epidemics and, in particular, attaining the goals we declared at Gleneagles. I am referring to providing those suffering from AIDS with access to necessary treatments and increasing the international community's readiness to fight against new diseases.

Education

Regarding education, we intend to draw attention to several aspects. These include increasing the quality of education and making it easier to receive recognition for degrees obtained from different education systems. In connection with this we are proposing to create an international centre that will evaluate different education systems by comparing the amount of knowledge that students receive. Its main task will be to certify graduates' qualifications and, in practice, provide them with access to the international labour market.

We also greatly value developing co-operation between research establishments, businesses and universities. This will allow us to eliminate unnecessary barriers in the innovation process and expand the possibilities for launching joint projects. Russia actively participates in the programme *Education For All* and will continue to develop principles that help evaluate the quality of primary education. We intend to contribute a significant amount of money to this programme this year.

Other Summit issues

We will discuss problems such as the non-proliferation of weapons of mass destruction, the settlement of regional conflicts and the struggle against terrorism. We will also address the issue of helping the African continent to resolve serious social and economic problems and develop health systems and other factors that influence the population's quality of life. At the Summit, we are prepared to examine any aspects of topical issues and engage in a joint search for answers to these problems.

We consider our G8 Presidency as a continuation of what has been done by the G8 so far, including what was done at Gleneagles. We also consider our Presidency as the stage that precedes that of our German colleagues who will assume the Presidency in 2007.

VLADIMIR PUTIN

Group portrait at the 2005 G8 Summit, Gleneagles, Scotland

The road to St Petersburg

John Kirton, Director, G8 Research Group

The process of preparing the 2006 G8 Summit has been the most open and inclusive in summit history

The Russians have devised a creative preparatory process, centred on democratising the G8 by institutionalising civil society engagement

When the leaders of the world's most powerful market democracies assemble in St Petersburg on 15-17 July for their 32nd annual summit, the world will be watching with unusually intense interest. This is the first time a regular G8 summit is being hosted by Russia, which joined the group as a permanent member only in 1998. Russia's chosen summit priorities – international energy security, infectious diseases and education – are rapidly rising to the top of the international agenda, as world oil prices surge to record levels, avian flu spreads across more continents and perhaps directly among humans, and the knowledge economy becomes vital for sustaining and spreading today's robust global growth. The Russians have devised a creative preparatory process, centred on democratising the G8 by institutionalising civil society engagement. And the world also wants this summit to deepen democracy within the host country itself.

There is much scepticism that the summit will meet these unusually large challenges. But there are good grounds for expecting that it will be a substantial success, for the Russian hosts are taking full advantage of the finest traditions of the summit and their long experience in the G8 system. Their strategy has been carefully crafted and the preparatory process has been well designed. This work holds out the prospect of timely, well-tailored new directions and concrete commitments on Russia's well-chosen priorities. And their innovative process is already democratising the G8 and Russia itself.

The growth of G8 governance

Today's G8 summit was founded amidst the dismal weather and world of November 1975 when the leaders of France, the United States, Britain, Germany, Italy and Japan gathered under grey skies at the Château de Rambouillet outside Paris to confront the acute energy, economic, security and democratic crises of the time. In response they created a new international institution of their own, composed only of democratic major powers, and devoted to promoting "open democracy, individual liberty and social advance" around the world. Canada first attended in 1976 and the European Union in 1977, strengthening the G8's central character as a small, select, powerful, democratically committed club.

Russia first arrived in 1989, in the form of a letter sent by then Soviet leader Mikhael Gorbachev, saying he wanted to bring the struggling Soviet system into the West. The G7 leaders met him at their 1991 summit, and then Russia's Boris Yeltsin in 1992, and ever more expansively in subsequent years. Once Russia successfully held its first democratic presidential election in 1996, there followed the 'Denver Summit of the Eight' in 1997 and a permanent G8 from 1998 on. At the 2002 summit in Kananaskis, Canada, the G8 decided that President Putin's Russia deserved to be a genuinely full member by hosting the summit in 2006. The G8 has thus repeatedly rewarded, through ever greater inclusion, Russia's historic decision to become a democratic polity – a decision which President Putin's Russia has never renounced and has recently reaffirmed.

Russia's inclusion has been good for Russia, for the G8, and for the democratic values they share. From 1975 to 1988, the then G7 summit had occasionally performed very well. It generated growth in the global economy and responded to terrorism at Bonn in 1978. It solved the second oil shock and stopped the spread of Iran's Islamic fundamentalist revolution at Tokyo in 1979. But it often performed very poorly, notably at Versailles in 1982. Here the G7 fell into a bitter public dispute between European leaders who wanted a Soviet gas pipeline to reliably bring Russia's safe, clean, surplus supplies to their energy-short countries, and America's Ronald Reagan, who warned that the pipeline would make Europeans vulnerable to a gas cut-off by their Soviet rival determined to win the Cold War.

The Russian President's arrival at the summit in 1992 contributed to a sustained improvement in summit performance. Through the increasing incorporation of Russia, the G7 summit played the central role in the 'second Russian revolution' – the surprisingly peaceful transformation of the Soviet Union into a democratic Russia and the consequent spread of democracy and openness throughout much of the world. The summit helped produce the world's core environmental regimes, first on climate change and biodiversity in 1992; on high seas over-fishing in 1995; and on the Kyoto Protocol in 1997. The last's ratification by Russia in 2004 ensured that the Protocol would come into legal force as the foundation for the world's 21st century quest to control climate change.

G8 Research Group

Munk Centre for International Studies
University of Toronto

The G8 Research Group is a global network of scholars, students and professionals in the academic, research, media, business, non-governmental and governmental communities. The Research Group follows the work of the G8 major market democracies and related institutions, such as the G7 and G20. Its mission is to serve as the world's leading independent source of information, analysis and research on the G8. Founded in 1987, the G8 Research Group is managed from the University of Toronto, with regional offices in London, Tokyo, Paris, Rome, Moscow, Montreal, Mexico City and Beijing, and has Professional Advisory Council members, Special Advisors and participating researchers spanning the world.

The G8 Information Centre (www.g8.utoronto.ca)

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University of Toronto
Munk Centre
For International Studies
At Trinity College

G8 Research Group • g8@utoronto.ca • www.g8.utoronto.ca • www.g8online.org

The Russians are reinforcing the 2005 Gleneagles summit's emphasis on climate change control by focusing on energy

Russia acquiesced in the G8's 1999 decisions to go to war to stop genocide in Kosovo and to prevent conflict in Chechnya. By 2005 Russia accepted the growing global consensus, codified at the United Nations' World Summit in September, that there was a general international responsibility to protect the lives of innocent civilians when their own governments could or would not do so. Even as the G8's most powerful member, the United States, often remained reluctant to move on these defining issues, Russia proved that it was an authentic member of the G8 club. And with Russia as a full and increasingly well socialised, experienced member, the 21st century summits delivered consistently high performance, apart from the 2003 interlude when divisions among the G7 founders over the American-led war in Iraq led to a short-lived dip.

The St Petersburg preparatory process

In preparing for St Petersburg, Russia started with a rich repertoire of experience in the G8 summit and system. The G8 system came together not only at the first summit of the original six members in 1975, and at the G4 and the G5 finance ministers 'Library Group' gatherings in 1973, but also at the London Nuclear Suppliers Group in 1975, with Russia and Canada in from the start. Russia abided by the guidelines of the Missile Technology Control Regime (incubated at the G7 summits in the 1980s) and formally joined in 1995. Its then Soviet leader first physically appeared at the summit a decade and a half ago. A newly democratic Russia successfully hosted the subject-specific G8 Nuclear Safety Summit in Moscow a decade ago, and a special G8 summit in St Petersburg as part of the Evian Summit of 2003.

Russia's strategy for St Petersburg started when it first learned at the 2002 summit that it would host the G8 in 2006. Russia immediately selected international energy security as the centrepiece subject, despite abundant world supplies and low prices then. For this could bring Russia's superpower energy supplies to the aid of an America assaulted by terrorism on 11 September 2001, and whose president had already asked the G8 to provide the energy security America needed from its international friends. Since then a Russia even more afflicted by deadly terrorist attacks on, over and under its own soil has stood at one with its G8 partners to confront global terrorism, as deadly attacks have come to the subways of Madrid and London, and as the other G8 members have taken the fight to the unforgiving mountains of Afghanistan that the Russians remember all too well.

To combine continuity and innovation productively in the summit agenda, the Russians are reinforcing the 2005 Gleneagles summit's emphasis on climate change control by focusing on energy, including energy efficiency, renewable energy, and low carbon, climate-friendly nuclear power in the mix. They are similarly building on Gleneagles' focus on African development with their priorities of infectious disease, centred on the HIV/AIDS pandemic in sub-Saharan Africa; and education, including the Education for All commitment at the heart of the UN's Millennium Development Goals. They are breaking badly needed new ground by having their summit devise basic principles for comprehensive global energy governance, address fast-moving fully globalised diseases such as avian flu, and foster high, harmonised educational standards for a more open, internationally mobile, multicultural world.

Continuity and innovation are also combined in their summit process. Participating at St Petersburg will be the executive heads of the multilateral organisations most directly connected to its priority themes. This formula was invented by the French a decade ago and has been adopted at some 21st century summits, with the aim of generating greater global legitimacy for and implementation of the G8's work. The Russians have fulfilled the desires of their partners to invite the leaders of China, India, Brazil, Mexico and South Africa, following a French initiative from 1989 that was repeated in 2003 and was followed to good effect by the British last year. This 'plus Five' group includes the great energy consumers and carbon producers of the future, the epicentre of a coming but still avoidable Eurasian HIV/AIDS pandemic, the capital-rich countries needed to control global financial imbalances, and the most significant rising powers critical to effective global governance in the 21st-century world.

Participating at St Petersburg will be the executive heads of the multilateral organisations most directly connected to its priority themes

St Petersburg's 'dual democratising' success

The Russians have also mounted the most open, inclusive preparatory process in summit history, with more G8 ministerial meetings for finance, one for energy, the first since 2000 for education, and the first ever for health. Their 'sherpa' (i.e. official responsible for preparing the summit) and his colleagues have consulted more widely than ever. They have created an Experts Council involving many inside and outside government to provide a sound analytic foundation for the summit's work. And through *Civil G8-2006* (see page 23) they have created the most organised, inclusive and government-connected civil society process in the summit's long life.

The democratising results are already apparent inside the G8 and Russia itself. An initially reluctant Russia has joined with its G8 colleagues to declare that market mechanisms are vital for energy security and much else. The *Civil G8-2006* process has empowered a broad range of Russian and international civil society organisations. It has injected a badly needed environmental voice into the energy security priority close to the heart of President Putin: he has now promised to re-route a new pipeline to protect Lake Baikal as the permanently pristine, largest freshwater lake in the world. To be sure, the world will have to wait until the summit communiqués are finally released and until Russia responds to their democratic directions and collective decisions in the years ahead, in order to assess the precise policy and political influence global civil society has had. But Russia's innovative and inclusive preparatory process is already deepening democracy within the G8 and Russia, one contact and conversation at a time.

The Civil G8-2006 process has empowered a broad range of Russian and international civil society organisations

The G8 Research Group is a global network of scholars, students and professionals committed to serving as the world's leading independent source of information and analysis on the G8. John Kirton is a Professor of Political Science at the Munk Centre at the University of Toronto, a member of the International Advisory Council of Civil G8-2006, and is advising the Russian Presidency on the 2006 summit.

The Civil G8-2006

Ella Pamfilova, Co-ordinator of the National Working Group, Civil G8-2006 project

Consultations with NGOs have become a tradition of the preparations for G8 summits. The main aim of such consultations is to clarify civil society's position on the priority issues determined by the presiding country.

The main aim of the non-governmental organisations (NGOs) which launched the *Civil G8-2006* project is to consolidate the most positive achievements of the previous years in the sphere of interaction with the G8 and to try to take this collaboration to a new level. Our hope is that these efforts will make a valuable contribution to the civil society-government dialogue and ensure efficient co-operation between various social sectors in Russia and elsewhere. The President of the Russian Federation, Vladimir Putin, has expressed his readiness to develop the dialogue with Russian and international civil society during the Russian G8 Presidency.

The main tasks of the consultative process organised by *Civil G8-2006* are to provide it with quality content and to ensure that it is open and transparent. The representatives of prominent Russian and international NGOs have formed an Advisory Council, charged with streamlining the activities and elaborating the ideas of the *Civil G8* process.

Responsibility for technical support and information activity rests with the National Working Group of the Advisory Council. (See the *Civil G8* website www.civilg8.ru)

The process of NGO consultations is divided into three stages. During the primary stage the main task was to prepare and deliver NGO recommendations for the G8 St Petersburg Summit agenda. During this stage the *Civil G8* organised and conducted a series of conferences and seminars simultaneously with the official preparatory activity for the G8. The papers issuing from the civil discussions were passed to the officials to be used, as we hope, during the process of elaborating decisions.

The International NGO Forum held in March 2006 marked the conclusion of this stage with all nine sherpas participating in its final plenary. Another meeting of 25 civil society representatives with sherpas took place in May.

During the immediate pre-summit period the main event is the International NGO Forum on the eve of the St Petersburg meeting, with up to 500 NGO representatives from all over the world. This event will set out the results of the consultative process, articulate ideas for discussion and explain the approaches adopted by civil society bodies in the first half of 2006. The final document of the Forum will be presented to the G8 leaders.

During the final stage the main task will be to carry out a civil society monitoring of the G8 summit decisions and follow-up; to summarise the results of the consultative process; and to work up recommendations for the next country – Germany – taking over the G8 Presidency in 2007. The final event will be the follow-up Forum in late November with the possible participation of the sherpas of Russia and Germany and other officials.

Ella Pamfilova is Chair of the Civil Society Institutions and Human Rights Council under the President of the Russian Federation

Energy security: continuing what Gleneagles started

Claude Mandil, Executive Director, International Energy Agency (IEA)

Investment in energy supply, improved efficiency and new technologies should be at the top of the G8 leaders' agenda at St Petersburg

Recent events have heightened the urgency of implementing the G8 Plan of Action

At the Gleneagles G8 Summit in 2005, President Putin asked me, as International Energy Agency (IEA) Executive Director, for the IEA's support for Russia during its G8 Presidency in 2006 and to contribute to its focus on Energy Security. This request was seen as a logical extension of IEA work and long-standing co-operation with the Russian government over the last 12 years on the development of rational energy policies. The IEA's involvement also provides a useful opportunity to strengthen its relationship and dialogue with Russia.

The G8 Summit in St Petersburg will address the challenges of climate change and securing clean energy and sustainable development. Agreeing to act with resolve and urgency, the G8 leaders at Gleneagles adopted a three-year Plan of Action and asked the IEA to provide advice on strategies for a clean, secure and sustainable energy future. A Dialogue has been launched, open to other significant energy consumers, but especially Brazil, China, India, Mexico and South Africa. The IEA is a partner in this Dialogue and plays a major role in delivering many of the objectives put forward in the Plan of Action. The IEA Governing Board of 26 nations has also charged the IEA with helping to 'bridge the gap' between what is happening and what needs to be done in the future.

Over the last year and a half, the IEA has made significant progress in meeting this evolving mandate through the activities of its offices and intensified international collaboration. But there is more to do. Recent events have heightened the urgency of implementing the Plan of Action. It is the hope of the IEA that the G8 Leaders in St Petersburg will reinforce what was started in Gleneagles, to enhance global energy security through initiatives and focus on transparency and dialogue to improve understanding of the challenges which lie ahead and of how to meet them together in the most efficient way.

We are under-investing in the energy supply chain

In 2004, the world suffered its first demand shock as it awoke to the welcome signs of strong economic growth around the world. In Russia, enhanced production from existing fields slowed and reserves were not replaced. The oil supply system was not ready and oil prices peaked at double their 2003 lows. They have since moved even higher. But this problem was not unique to Russia. For nearly 20 years the world has collectively under-invested in upstream oil production capacity and capacity additions are now only just keeping pace with growing demand. More recently, the refining sector has also fallen behind, finding it difficult to cope with the very important challenge of producing environmentally sensitive fuels while the quality of the marginal barrel of oil produced declines.

Late last year, the world had one of its first experiences of international

Energy efficiency improvements of up to 25 per cent of energy use can often be made at very low or no cost

markets adjusting to a shock in natural gas supply. The loss of 8 billion cubic feet per day of gas production in the US Gulf of Mexico after hurricanes Katrina and Rita, coupled with supply reductions and outages in a range of other supplies, demonstrated that even gas markets that used to be regional are converging as spot liquefied natural gas cargoes now arbitrage gas prices across the Atlantic and Pacific markets.

Everyone needs to care about what is happening in the gas markets around the world as disturbances increasingly affect customers *across* regions. Earlier this year, tension heightened in gas markets in Europe as a result of a commercial dispute between Russia and Ukraine. In addition, gas shortages have emerged in Italy and the United Kingdom, highlighting real weaknesses in European energy infrastructure, markets and gas deliverability. During this period, the IEA has been disappointed by the Russian and Central Asian gas system's inability to respond effectively. This shortcoming has many explanations but is primarily the result of insufficient investment in upstream production, transport and storage capacity throughout the system, exacerbated by inadequate market reform.

Responding to the G8 task of collecting and publishing the best practices for efficiency worldwide, the IEA has conducted energy policy reviews of every country around the G8 table. Each country could improve its investment climate or conditions in some areas. This improvement could be accomplished by curbing the market power of often dominant incumbents, achieving cost-reflective energy pricing, communicating appropriate and complete regulatory messages, lightening licensing impediments and answering public resistance. Because our hosts, the Russians, are the most recent to take on these challenges, they have the furthest to go. The IEA can only encourage a more rapid convergence of Russian energy policies and practices with those of its major trading partners and customers.

We are missing too many efficiency opportunities

Looking forward more broadly, the current path of global energy use and emissions growth is not sustainable: CO_2 emissions are rising rapidly and energy security concerns loom large. Every country has its own strategy for moving towards a more sustainable path even if everyone agrees on energy efficiency as one tool that can benefit all countries. Efficiency saves energy, it reduces costs and lowers carbon dioxide emissions. Energy efficiency improvements of up to 25 per cent of energy use can often be made at very low or no cost.

The world should look at energy efficiency the same way it looks at other energy reserves. But rather than being trapped underground, energy efficiency is trapped by market failures, barriers and inefficient government regulation. Governments can 'mine' this energy efficiency potential by developing guidelines, standards and more precisely specifying property rights.

Russia, for instance, is an energy superpower in terms of its rich natural resource endowment but also in terms of its huge energy efficiency potential. A recent IEA study on district heating systems in Russia and other countries of the former Soviet bloc estimates natural gas savings in the order of 80 bcm/year through modernisation of heat-only boiler systems to IEA member country cogeneration systems (see *Coming in from the Cold*, IEA/2004).

Another IEA study released before the G8 Summit in St Petersburg estimates that more than 30 bcm of natural gas could be saved annually in Russia's gas transmission and distribution systems as well as through reductions in the volumes of flared gas by Russian oil companies (see *Optimizing Russian Natural Gas: Reform and Climate Policy*, IEA/2006).

Official annual data shows Russia currently flares a minimum of 15 billion cubic meters of gas associated with oil production (partly as oil companies lack access) to Gazprom's transmission infrastructure. Reform of third-party access, and natural gas reform more generally, could add this additional volume to the country's supply. Such reforms would also enable large gas savings potential – and greenhouse gas reductions – in the transmission and distribution networks.

The IEA hopes that G8 leaders, when they next meet in St Petersburg, will support concrete measures. The list of needed energy efficiency measures is long, and time is short to move our energy systems to a more sustainable path.

We need to put more effort into technology

In the absence of changed government policies, the world's energy needs are set to rise inexorably, increasing by more than half between now and 2030. CO_2 emissions will also increase by more than 50 per cent. Policies already under consideration could make a significant difference – but this will still not be enough. Far more radical policy action and technology breakthroughs are needed to reverse these trends.

Public support, the private sector's initiative and innovation, and government leadership – probably in that order of importance – all have contributions to make. But the role of government in setting the framework is indispensable.

The substantial short-term potential for efficiency in power generation, buildings, appliances, industry and vehicles could make a big difference in reducing energy consumption. The technology already exists to make this possible. But it is just as urgent to press ahead with new technologies needed in the medium and longer term to transform the energy infrastructure of the future. Key technologies with strong potential include carbon capture and storage, renewables, nuclear power, efficiency technologies, and, in the longer term, hydrogen fuel cells.

International consensus building will be vital because these technologies will need to sell in a global marketplace. And this effort must include co-operation between developed and developing nations because it is developing countries that are now, by far, the most dynamic in terms of the growth in demand for energy services.

At the UN Commission on Sustainable Development meeting in New York in May 2006, the IEA launched a major new initiative to promote global co-operation in energy technology. In addition, the IEA will soon publish *Energy Technology Perspectives*, a groundbreaking study that will analyse the status and costs of all the key technologies, and identify the barriers to realising their full potential. This book will identify strategies for combining these technologies to deliver the clean, clever and competitive energy future that policymakers demand.

With the strong support of its 26 member governments, the IEA will do the maximum to achieve the objectives mapped out in the G8 Plan of Action. But it is the heads of state and government in St Petersburg who must consider the policy options and then put them to work. To meet the global need for energy investment, improved energy efficiency and new technologies, the IEA urges leaders to act decisively and soon.

Europe's changing energy landscape

José Manuel Barroso, President of the European Commission

Europe's future energy needs and climate change goals can only be met through a common European energy policy. The European Commission is leading efforts to shape one

The scale of the challenge

The global energy landscape is changing fast. What is true for the world is especially true for Europe. Today, half of the European Union's energy requirements are met by imports – a figure set to rise to 70 per cent in a couple of decades. Mature hydrocarbon reserves in Europe and the United States are being exhausted. At the same time, global oil consumption has increased 20 per cent in the last ten years. Competition for resources is growing.

The challenges don't end there. In Europe alone, €1 trillion is needed over the next 20 years to meet expected energy demand and replace ageing infrastructure. Globally, the figure is around US$16 trillion. Such massive spending requires a secure and transparent investment climate in the world, and functioning markets and infrastructure.

Finally, according to the Intergovernmental Panel on Climate Change, climate change has already made the world some 0.6°C hotter. In the worst case scenario, temperatures could rise by up to 5.8°C by the end of the century. To make its contribution to stabilising global climate change, the EU needs to reduce its CO_2 emissions by at least 50 per cent over the coming decades, and other countries will have to play their part. At present, global emissions of CO_2 are actually accelerating.

For far too long, European energy policy has been fragmented rather than focused

Towards an integrated energy policy for Europe

The Commission's energy Green Paper, endorsed by Europe's leaders at their Spring Summit in March this year, faces up to this new reality.

For far too long, European energy policy has been fragmented rather than focused. It need not, and should not, be like this. With 450 million consumers, the European Union is the largest importer and second largest consumer of energy in the world. We are already world leaders in technologies and the policies needed to get them out of laboratories and into markets. Acting together, we have the weight to defend and assert our interests.

So what does the Green Paper propose? It starts from the established consensus: that the European Union needs an integrated, European Energy Policy that maintains Europe's competitiveness, safeguards our environmental objectives and ensures our security of supply. It sets out a vision for a new energy system, based on effective collaboration between producers and consumers, serious efforts to increase energy efficiency worldwide, and a quantum leap in the production of renewable and low-carbon energy.

By agreeing to endorse the Green Paper's clearly identified energy goals and priorities, and to pursue them rigorously with a single voice, Europe's leaders have taken the first steps towards leading the new global energy agenda, rather than following it. Their common position is a powerful contribution to the G8's active stance in this area.

Towards an integrated energy market

The Green Paper identifies six priority areas for action, which are mutually reinforcing. First is the need to complete a fully integrated internal energy market for Europe. We need an open and competitive market with competition between companies striving to become Europe-wide competitors, not dominant national players. To respond successfully to the many challenges we face, and ensure proper, sustainable investment for the future, consolidation of the energy sector must be market-driven.

Securing supply

The second priority area for action concerns security of supply within these internal markets, built on concrete measures which reflect solidarity between Europe's member states. For example, the establishment of a European Energy Supply Observatory in 2007 will help identify likely shortfalls in infrastructure and supply at an early stage and complement, on an EU level, the work of the International Energy Agency.

Network security will be improved through increased collaboration and exchange of information between transmission system operators. Work has also begun on a new crisis mechanism to enable assistance to a country facing difficulties following damage to its essential physical infrastructure. A more co-ordinated Community position on emergency energy stocks is in the pipeline, as it were.

We need competition between companies striving to become Europe-wide competitors, not dominant national players

The EU's energy mix and the Strategic Energy Review

The third priority area goes to the heart of a European energy policy: the EU's energy mix. It grapples with a key conundrum: how can we reconcile the fact that the choice of a member state's energy mix is and will remain a matter for the member state, with the reality that choices made by one member state inevitably have an impact on the energy security of its neighbours and the Community as a whole?

The Commission has begun squaring this circle through a comprehensive Strategic EU Energy Review – an analysis of all the advantages and disadvantages of different energy sources, and the knock-on effect of investment in them for the EU as a whole. This will also allow an open and informed debate on the future role of nuclear energy in the EU. This should become a regular exercise, and I hope it leads to agreement on an overall 'Strategic European Energy Objective', of the percentage of secure, sustainable energy which the EU uses. This objective would provide a benchmark for the development of the EU's energy policy.

Climate change

A fourth key area concerns how we tackle climate change, which of course has strong links with our energy policy. The Green Paper addresses how Europe can achieve its climate change goals in an integrated manner; in other words, in a way that contributes positively to its competitiveness and security of supply. In order to do this, one point of departure is that future targets and objectives in this area have to be made on the basis of a robust cost-benefit analysis.

Impact assessments will be carried out in the coming months, and conclusions will be drawn in the Strategic EU Energy Review mentioned earlier. However, I can already identify two areas where concrete action is being considered.

Firstly, the Commission will this year propose an Action Plan on Energy Efficiency with measures to reduce by 20 per cent the EU's projected 2020 energy use. This is a top priority, not least because by reducing the energy intensity of growth, we tackle the issues of climate, security of supply and competitiveness at the same time.

Secondly, the EU will have to make greater use of renewable energy. Not just because of climate change, but because we must lay the foundations today for a time when the hydrocarbons supply can no longer cope with demand. Action here will help confirm Europe's world leadership in renewable energy technologies, which represent a rapidly growing global market. As a part of the Strategic EU Energy Review, the Commission will bring forward a Renewable Energy Road Map, for an effective policy on renewables.

The Commission will this year propose an Action Plan on Energy Efficiency with measures to reduce by 20 per cent the EU's projected 2020 energy use

Research and innovation

The fifth priority area is research and innovation, fundamental in our transition to the energy systems of the future. Through the Emissions Trading System, Europe is already the only market in the world where implementing environmentally friendly energy production is financially rewarded. This encourages not only research into low or neutral carbon technologies, but also their implementation on the ground.

We need to consolidate this competitive advantage in research terms. After all, these technologies will represent multi-billion euro global markets in the future. The Commission will therefore put forward a strategic energy technology plan in the near future.

Speaking clearly

The final priority area of the Green Paper is, along with the energy mix, one of the most important. It concerns external energy policy. Quite simply, Europe must use more effectively its economic and political influence on the world stage. It needs to define clearly its goals and aspirations regarding its energy partners, and then speak with one voice to promote those interests.

Only joined-up policies will work

At last month's European Council, Europe's leaders adopted a joint Commission/Council paper which tackles this challenge head-on. It recognises that achieving our goals in today's energy world requires a combination of internal and external policies. Policies on energy, trade, development, enlargement, competition, research, environment and the EC's financial instruments all need to be harnessed to this end. Two building blocks of an external energy policy are highlighted in particular in this paper: the creation of well-functioning world energy markets and the diversification of energy, in terms of types of energy, geographical origin and transit.

The joint paper highlights areas where action can already be taken to ensure that the EU's external relations, including the Common Foreign and Security Policy, make a full contribution to the development of a European energy policy.

The world is entering a new energy era. With a common, European energy policy, we will be able to embrace this era with confidence.

Climate change: measuring the threat

R. K. Pachauri, Chairman, Intergovernmental Panel on Climate Change (IPCC)
Director-General, Tata Energy and Resources Institute (TERI)

Climate change has the potential not only to disrupt the biophysical systems on which human life depends but also to bring devastation to some of the world's most vulnerable communities through extreme weather events

One finding of the TAR was that the duration, location, frequency and intensity of extreme weather and climate events would change and would result in mostly adverse impacts on biophysical systems

The issue of climate change is not only receiving greater interest from the scientific community, which has made enormous strides in creating knowledge on all aspects of the subject, but several world leaders of high standing are now making climate change a top priority in policymaking. It is, therefore, logical that the G8 Summit involving the leaders of the largest economic powers in the world has included climate change as a subject of continuing importance.

While individual scientists and various institutions across the globe have been working on a study of the world's climate system, its nexus with human activities, and the socioeconomic impacts that climate change produces round the world, a comprehensive assessment of the subject has largely come from the work of the Intergovernmental Panel on Climate Change (IPCC). The First Assessment Report of the IPCC, which was produced in 1990, had a major effect on the outcome of negotiations resulting in the UN Framework Convention on Climate Change (UNFCCC) in 1992. The next assessment report, the second of the series, which was completed five years later, had a major impact on the creation of an agreement to limit the emissions of greenhouse gases (GHGs), which took the form of the Kyoto Protocol in 1997. The Third Assessment Report (TAR) gave us further knowledge on all aspects of climate change, but in particular had a major influence in directing the attention of the global community – through the Conference of the Parties held in New Delhi in 2002 – on to the issue of impacts on, and adaptation to, climate change.

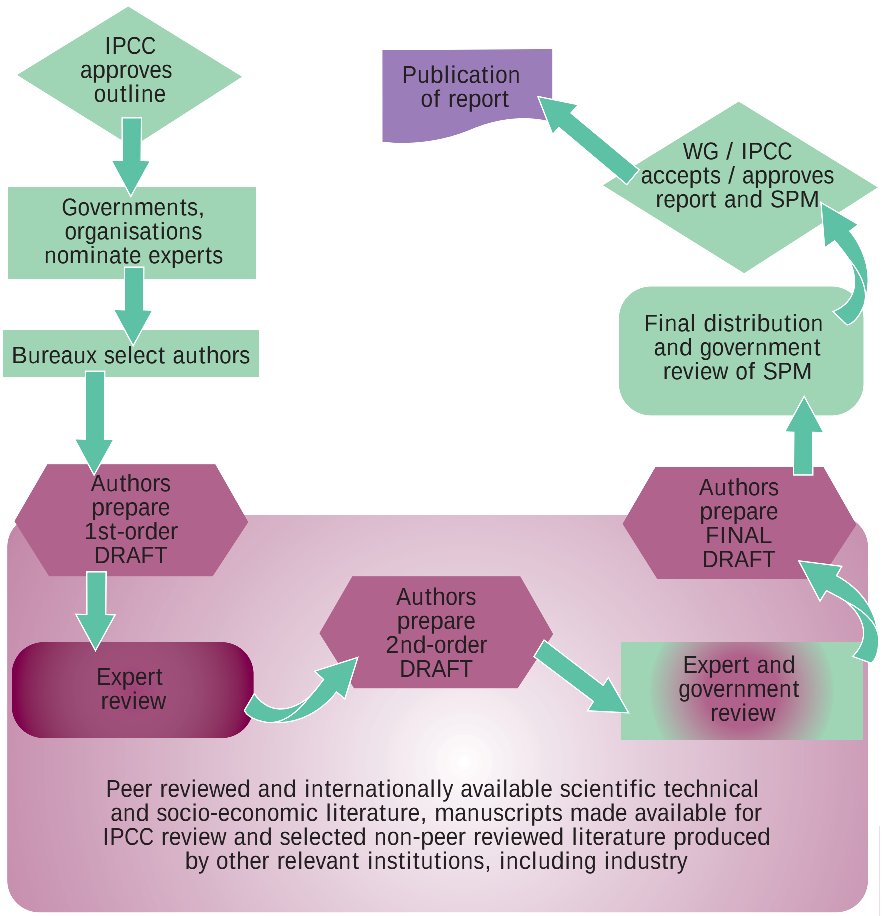
Work in progress: the Fourth Assessment Report

The IPCC is currently working on its Fourth Assessment Report (AR4), which will be completed by the end of 2007. This report has several significant features – including greater focus on cross-cutting themes – which have been identified for special treatment, to include:

- Regional issues
- Uncertainty and risk
- Technology
- Sustainable development
- Integration of adaptation / mitigation
- Article 2 of the UNFCCC / key vulnerabilities
- Water

These cross-cutting themes have a special relevance from a policy

Figure 1 – Process of preparation of IPCC reports



Irrespective of the reduction in emissions, the world would have to continue with adaptation measures to counter the impacts of climate change for a long period of time

perspective. For instance, in the case of water, while assessment of how precipitation changes may occur with climate change will be provided in the report of Working Group I, impacts related to the availability of water in different regions of the world will come from the report of Working Group II. However, the policy relevance of these specific components will come essentially from an integrated assessment of water across the entire cycle, which is what the treatment of this cross-cutting theme will attempt to do.

The current status of progress of the AR4 is that drafts have advanced to a significant extent through the writing and review process. IPCC procedures involve an elaborate system whereby drafts are prepared and reviewed at various stages by expert reviewers as well as governments.

The entire process of preparation and review of an IPCC report is explained in Figure 1. Electronic communications, as used extensively in the AR4 process along with web-based methodologies, have substantially enhanced the reach of the drafts of the reports for the review process. Thus there are literally thousands of people taking part in this procedure.

In addition to the three working group reports dealing respectively with scientific aspects of the climate system; impacts, vulnerability and adaptation related to climate change; and mitigation options for stabilising the concentration of GHGs in the atmosphere, the AR4 will also include a synthesis report. The report that will be produced as this synthesis will be a brief 30 pages in length, including diagrams and illustrations. The outline of the synthesis report will include the following subjects or sections:

- Observed changes in climate and its effects
- Causes of change
- Climate change and its impacts in the near and long-term under different scenarios
- Adaptation and mitigation options and responses, and the inter-relationship with sustainable development, at global and regional levels
- The long-term perspective: scientific and socio-economic aspects relevant to adaptation and mitigation, consistent with the objectives and provisions of the Convention, and in the context of sustainable development
- Robust findings, key uncertainties

It is expected that the AR4 will succeed in bridging some of the gaps that existed in our knowledge as covered in previous reports, and will possibly also reduce some of the uncertainties associated with several components of our knowledge in the field.

The findings to date

However, in this context it is important to review some of the major findings of the TAR, which will be explored further in the assessment contained in the AR4. The main reason for human induced climate change is the increased concentration of GHGs in the earth's atmosphere, dominated by an increase in the concentration of carbon dioxide (CO_2). Between the years 1750-2000, a change in the concentration of CO_2 took place from 280 parts per million (PPM) to 368. Recent data, which will be dealt with in the AR4, indicate a substantial rate of increase in emissions in the five years of this century as well. The global mean surface temperature during the 20th century increased by 0.6+/- 0.2°C in the Northern Hemisphere. This represented an increase greater than that during any other century in the last 1,000 years. The 1990s in this respect were assessed as being the warmest decade of the millennium. Overall the TAR concluded:

"There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities, and emissions of CO_2 due to fossil fuel burning are virtually certain to be the dominant influence on the trends in the atmospheric CO_2 concentration during the 21st century."

The TAR also made projections of climate change up to the end of the 21st century. These were assessed to indicate a projected increase in global average surface temperature of 1.4 °C to 5.8 °C, with a corresponding increase in sea level of 9 cm to 88 cm. However, another significant finding was that the duration, location,

The richest nations of the world must focus on the threat to be faced by the world's least developed societies

frequency and intensity of extreme weather and climate events would change and would result in mostly adverse impacts on biophysical systems. This finding could be qualified to lie in the range of 'likely to very likely'. It was also concluded that greenhouse gas forcing in the 21st century could set in motion "large scale, high impact, non-linear and abrupt changes in physical and biological systems over the coming decades to millennia with a wide range of associated likelihoods." These could be in the form of a breakdown in the thermohaline circulation, or the melting of the Greenland ice sheet.

The impacts of climate change are diverse in their geographical spread and consequences. Climate change has impacts on human health, on the quality and availability of water resources, on agriculture, coastal areas and small island states, as well as on several species. It was also projected that non-polar bodies of ice would melt faster, such as seen in the continued process of widespread retreat of glaciers that took place during the 20th century. It was concluded as 'very likely' that the extent of snow cover has decreased by about 10 per cent on average in the Northern Hemisphere since the late 1960s, and the annual duration of lake and river ice cover in the mid and high latitudes of the Northern Hemisphere has been reduced by about two weeks over the 20th century.

An important issue related to the impacts of climate change arises from the inertia in the system, which would result in the impacts of climate change continuing for decades if not centuries. This means that irrespective of the reduction in emissions that we are able to bring about, the world would have no choice but to continue with adaptation measures to counter the impacts of climate change for a long period of time. Unfortunately, there are several regions of the world that are particularly vulnerable to these impacts, such as the Small Island Developing States (SIDS) and low-lying coastal areas in different parts of the world. This situation has important equity implications because those societies – which have made the smallest contribution to creating the problem of climate change – would perhaps be the most vulnerable. For this reason, the richest nations of the world must also focus on the threat to be faced by the world's least developed societies, on whom the adverse impacts of climate change could cause major harm to human welfare.

Environmental security

Achim Steiner, Executive Director, United Nations Environment Programme (UNEP)

Cleaner technologies and renewable energy sources can marry economic development with environmental and social objectives

Energy security has become the burning issue of our time. For some it means guaranteeing safe, sufficient and long-term supplies of traditional fossil fuels like oil, gas and coal. For others, it means freeing the planet from fossil fuels in favour of alternative forms of energy like wind, solar, biomass and hydrogen. For me it means both and more.

It is a fact that while one's heart may plead for a carbon-free world, the head knows that fossil fuels will, to a greater or lesser extent, be part of the energy mix for the foreseeable future. Disrupted supplies damage economies across the world and fuel anxiety that drives higher and higher prices. Industry faces rising costs, as do consumers through higher electricity bills and at the petrol pumps.

In developing countries, struggling to grow their economies and to lift poor people out of poverty, it can spell life and death. Every time oil hits over US$50 a barrel (and as I write it is far higher than that, at over US$70) many importing nations on continents like Africa are forced to meet the extra cost through spending precious overseas development aid. This is money intended for hospitals and medicines, and for schools, agriculture and sustainable development programmes.

So I am delighted that the Japanese government has put 'energy savings' firmly on the agenda of the G8 in St Petersburg this year. It was also a message emphasised by environment ministers attending the Special Session of UNEP's Governing Council/Global Ministerial Environment Forum earlier in the year. They concluded that energy efficiency codes and standards should be adopted world-wide for buildings, electrical appliances, cars and agricultural machinery. Governments can set the example by focusing their purchasing power on buying energy-efficient goods, equipment and services.

There is so much low hanging fruit. Conventional power stations waste between 40 per cent and 65 per cent of the energy generated. Electrical appliances like TVs collectively consume large amounts of electricity needlessly when on standby. If all OECD countries' governments could agree on a standard to limit standby power use to no more than 1 watt per device, peak electricity load could be reduced by roughly 20 gigawatts, the equivalent of 20 large power plants. This so-called *International Energy Agency 1-Watt-Initiative* was approved by the G8 leaders at their summit in Gleneagles in July 2005 and is now being put into practice.

Indoor air pollution may be responsible for up to 2.4 million premature deaths annually

Tackling the demand side

One way to meet the challenge is to ensure that the pipelines keep flowing. But there is a second way that is all too often ignored or sidelined. This is dealing with the *demand* side. It remains a fact that far too much energy is simply wasted in power plants, in factories, in homes and on the roads, the high seas and in the air. A revolution in energy efficiency and energy savings makes sense on energy security grounds but also on hard-nosed economic and environmental ones too.

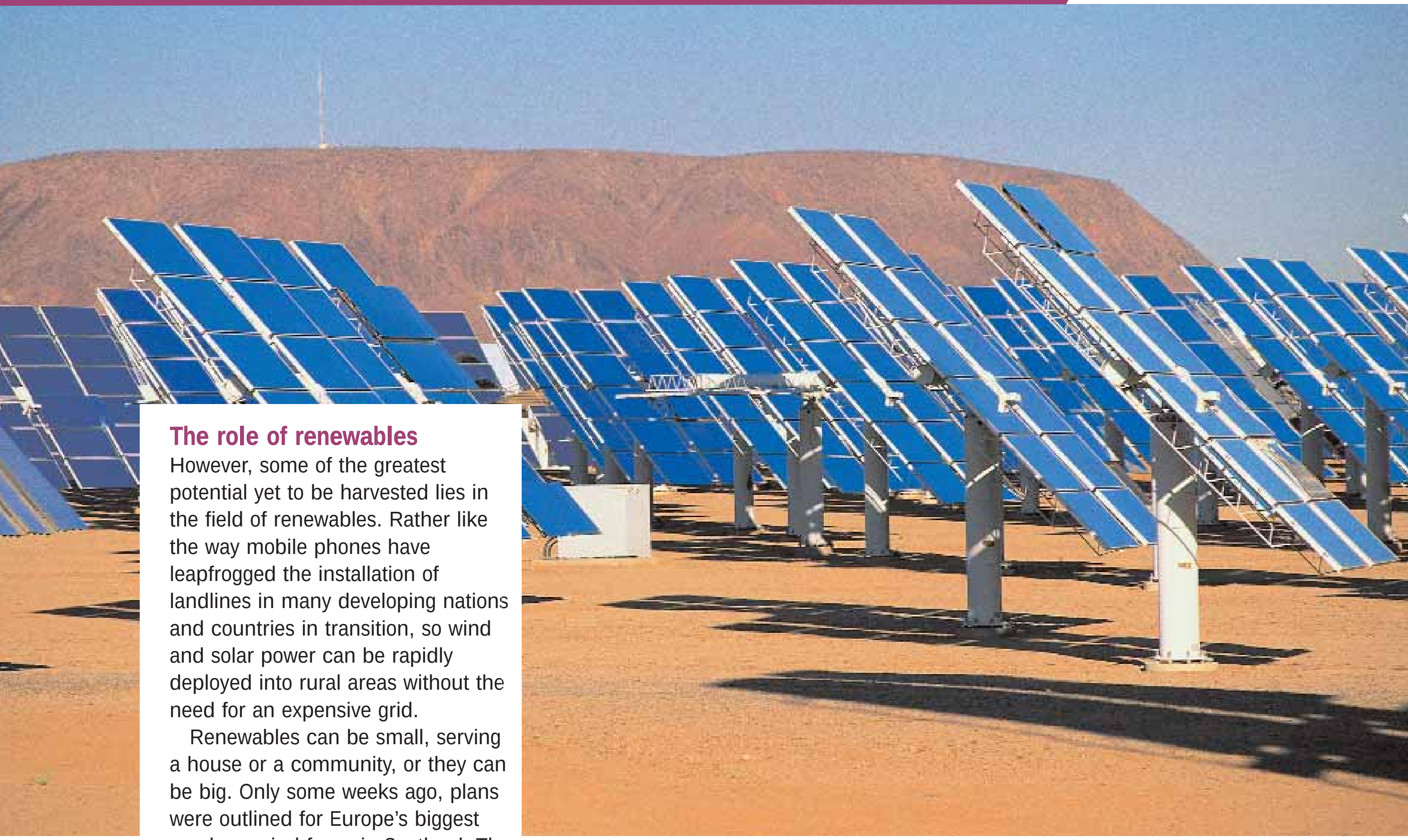
Meanwhile, new vehicle technologies such as hybrid cars can have a role. The first ones, introduced in Japan in the late 1990s, increased fuel efficiency by 11km per litre. New ones have improved efficiency by up to 22km per litre. We can go further.

In many developing countries, energy security is simply about getting access to energy in the first place. About 90 per cent of people in Kenya, where UNEP is proud to be headquartered, have no access to grid electricity. Globally, over one and a half billion people in the developing world are in the same predicament. Most rely on biomass, many rely on trees for cooking and, as in many developing nations, a great deal is burned on indoor stoves.

Wanted: cleaner technologies

The G8 also has infectious diseases high on the agenda. The link between energy inefficiency and health is also relevant and strong. Between 10 per cent and 20 per cent of wood, dung or agricultural waste fuels is not fully burned, triggering a wide range of harmful air-borne pollution. Particle levels can range between a high 300 to a massive 3,000 microgrammes per cubic metre. (The European Union guideline, in contrast, is 40 microgrammes per cubic metre). No small wonder that indoor air pollution may be responsible for up to 2.4 million premature deaths annually. Meanwhile, outdoor air pollution from industries and vehicles may trigger some 800,000 premature deaths a year, with over 60 per cent of these in Asia. This spells not just misery for millions but has potentially huge economic costs. The World Bank estimates that, on current trends, China may, by 2020, be paying close to US$400 billion a year to treat diseases linked to coal burning.

Many countries, like the United States, are now pressing forward with research to develop cleaner – indeed zero emission – coal-fired power stations. Advanced fuels like hydrogen and fuel cells may not be far from commercialisation. Meanwhile, greater access to cleaner burning fuels like kerosene and liquid petroleum gas could, in the short term, reduce the health burden in developing country homes while taking some of the pressure off important ecosystems like forests.



The role of renewables

However, some of the greatest potential yet to be harvested lies in the field of renewables. Rather like the way mobile phones have leapfrogged the installation of landlines in many developing nations and countries in transition, so wind and solar power can be rapidly deployed into rural areas without the need for an expensive grid.

Renewables can be small, serving a house or a community, or they can be big. Only some weeks ago, plans were outlined for Europe's biggest on-shore wind farm, in Scotland. The 322-megawatt, 140-turbine Whitelee project south of Glasgow will provide enough green energy to power 200,000 homes.

Close to 200 actions and commitments to promote renewables are underway or pledged as a result of the Renewable Energies conference held in Bonn, Germany, two years ago, which may lead to international cuts in carbon dioxide of around 5 per cent. A report card on progress was issued only some weeks ago in early June.

We can also 'think big'. Some researchers and industry experts claim there is enough sunlight hitting the world's deserts to generate enough electricity for the world many times over.

UNEP is also in a group, with funding from the Global Environment Facility, to try and exploit the vast 'hot rock' or geothermal potential of East Africa's rift valley. This really is a living example of energy security. The supply is renewable and, being indigenous, could massively reduce fossil fuel imports. Indeed, it is estimated that Africa has some 7,000mw of untapped geothermal energy.

Some experts claim there is enough sunlight hitting the world's deserts to generate enough electricity for the world many times over

Climate security

The benefits extend beyond fighting poverty, reducing ill health and air pollution, to confronting one of the biggest threats facing the planet, namely climate change. Only someone living on Mars could be unaware of the profound changes now sweeping the planet, from the melting of the Arctic ice to the growing frequency and intensity of weather events. According to Munich Re, one of the world's biggest re-insurers and a company whose business is in the front line, weather-related natural disasters cost more than US$200 billion in 2005.

The costs of inaction will without doubt continue to rise, damaging rich and poor economies alike and make the prospect of meeting the internationally agreed Millennium Development Goals far less certain.

Fortunately, energy security and the wider issue of climate security can and are starting to step out hand in hand. Indeed we have, maybe for the first time ever, extraordinary opportunities to bring together long-term economic and political imperatives with environmental and social ones.

Under the Kyoto Protocol, the legally binding international treaty designed to reduce greenhouse gas emissions, the so-called 'flexible mechanisms' are beginning to burst into life. Only some weeks ago it was announced that energy projects from the Clean Development Mechanism (CDM) – a fund that allows industrialised nations to offset emissions via clean energy and some kinds of forestry schemes in developing countries – had reached over US$2.5 billion in 2005. The global carbon market, including the CDM and emissions trading, now stands at US$11 billion.

The United States, which decided not to ratify the Kyoto Protocol, is far

Saving the rainforest: tree planting in Costa Rica

Reducing deforestation would also trigger other wide-ranging benefits

from idle. The Federal Government is encouraging technologies like solar power and, as mentioned, clean coal and hydrogen. Numerous American cities and individual states have or are planning to adopt Kyoto-style emission reduction targets.

We are up and running. Now we need to sprint towards the even deeper cuts needed to stabilise the atmosphere and avert catastrophic climate change.

We must also consider new initiatives like those proposed by nine rainforest countries led by Papua New Guinea and Costa Rica. Deforestation in the tropics may account for a fifth of greenhouse gas emissions. The CDM covers planting new trees but does not benefit countries protecting their standing forests. Bringing reductions in the deforestation rates of standing forests into the equation could not only reduce climate-related emissions, but also provide much-needed funds for conservation and local livelihoods. IPAM, a Brazilian research agency, estimates that Brazil could earn US$500 million a year from carbon credits, if standing forests were included. Reducing deforestation would also trigger other wide-ranging benefits, especially for the poor and those committed to meeting the Millennium Development Goals (MDGs).

Health security and environmental degradation

Infectious diseases need to be tackled by making drugs and health care more widely available but increasingly we are understanding that the environment has a vital role. Studies in the Amazon by researchers at Johns Hopkins University in the United States have concluded that for every 1 per cent increase in deforestation, there is an 8 per cent increase in the number of malaria-carrying mosquitoes.

Nipha virus is another case in point. It was, until recently, only normally found in Asian fruit bats. Its emergence in the late 1990s as an often-fatal disease in humans is being linked with a combination of forest fires in Sumatra and the clearance of natural forests in Malaysia for palm plantations. Bats, searching for fruit, were forced into closer contact with domestic pigs, giving the virus its chance to spread to humans via people handling swine.

Close contact of wild birds and poultry species is believed to be a major cause behind the spread of avian influenza. So restoring lost and degraded wetlands would seem like a good insurance policy to keep the two apart, as well as rehabilitating natural flood control features and water storage sites. Indeed, maybe the next G8 Summit can focus on water security as another stepping stone to tackling the overarching and fundamental threat to all life and livelihoods – environmental degradation.

All these issues – from energy security and climate security, to water and health security – are ultimately just part of a far wider issue not only for this but for generations to come, namely *environmental security*.

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Global health: building on success

Richard G.A. Feachem, Executive Director,
The Global Fund to Fight AIDS, Tuberculosis and Malaria

Infectious diseases like AIDS, malaria and TB inflict a terrible human toll and economic costs. With the threat of pandemics presenting another challenge to health care systems, G8 leaders have a crucial role to play in mobilising effective action on a global scale

Malaria can now be driven back with startling effectiveness


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At its summit in Okinawa in 2000, the leaders of the G8 agreed that health is a central prerequisite for economic development. They undertook to fight the main infectious diseases that perpetuate poverty, reduce productivity and dissuade investments in developing countries, setting ambitious targets for this battle.

Progress is being made

Six years on, the G8 have proven that they take these commitments seriously. Financing for AIDS alone has grown from roughly US$1.8 billion a year in 2001 to more than US$8 billion currently, through the personal commitment of political leaders like Prime Minister Blair, President Chirac and President Bush. Universal access to prevention and treatment for AIDS has turned from a distant dream in 2000 to a reachable target, set for 2010, which the G8 committed to at last year's summit at Gleneagles. Malaria, once considered a permanent menace in large parts of the tropical world, can now be driven back with startling effectiveness thanks to new drugs and systematic preventive actions. And there is an agreed, global strategy on how to tackle and drive back tuberculosis.

As a concrete manifestation of their commitment, the G8 countries launched (and have, together with other nations, consistently financed) the Global Fund to Fight AIDS, Tuberculosis and Malaria, which in less than five years has committed more than US$5.4 billion to programmes in 130 countries. Through Global Fund-supported programmes, more than half a million people have been put on treatment for AIDS, nearly 1.5 million people have completed treatment for tuberculosis, and more than 11 million families have been given a bed net to protect their children against malaria. Tens of millions of people have been reached with AIDS prevention services, testing and other care.

The incident of the appearance of the virus known as SARS in 2003 demonstrated to the world the potentially catastrophic global economic impact of infectious diseases. Greater recognition of this truth has driven countries around the world to take substantial pre-emptive action to protect their populations and economies from a possible influenza pandemic.

Eastern Europe, Russia and Central Asia

However, while the possible economic devastation of slower-moving epidemics is harder to assess, the tuberculosis crisis and growing AIDS problem in parts of Eastern Europe and Central Asia have finally been recognised for the tremendous threat they pose to the growing economies of these countries. Russia, already facing a declining population from ill-health and high rates of accidents, is now starting to scale up its battle against its fledgling – but rapidly growing – AIDS epidemic and its serious crisis of highly lethal tuberculosis strains resistant to all but a few expensive drugs.

Global Fund grants worth more than US$300 million to Russia, and another US$400 million to the rest of Eastern Europe and Central Asia, have catalysed an effective response to these threats. The government of Russia is now investing substantial resources of its own to further scale up these activities and may succeed in stemming both the AIDS and the tuberculosis epidemics before they take on catastrophic proportions. Similar efforts are made by other governments in the region.

The current spectre of a human flu pandemic can only be effectively addressed through collective action led by the G8

Committing resources

The high stakes of fighting these pandemics have set the tone for the G8 Summit in St Petersburg this year. The current spectre of a human flu pandemic is highlighting the fact that the battle against global pandemics is a major global concern, which can only be effectively addressed through collective action led by the G8.

However, the most difficult challenge in the years to come will be to ensure a growing, sustainable and predictable flow of resources to continue the fight and build on the results already achieved. Collectively, the world community has made a life-long commitment to hundreds of thousands of people around the world by helping provide AIDS treatment for them – treatment which will have to continue for as long as they live; hopefully we will make similar commitments to millions more in the years to come. But that commitment means that funding must continue to flow for another ten, 20, and probably 30 years. Halting that funding – and therefore treatment – is unthinkable.

The predictability of that finance is equally critical. As the number of people on treatment grows, countries will be understandably anxious about variable aid flows. A sudden shift in donor priorities could leave a nation unable to continue treatment for thousands of its citizens. Forced to take account of this possibility, budget and programme planning may be accordingly distorted.

Over the past five years, the generosity of donor governments has enabled the Global Fund to grow rapidly into the force it is today. But that funding has been committed on an annual, ad hoc basis, limiting any possible mid- or long-term financial planning.

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This is a formidable challenge. But there have recently been some promising signs. The Global Alliance for Vaccines and Immunization is putting in place a system of long-term financial commitments, which provides recipients with reassurances of funding for at least ten years. And the recent UK pledge for global education is also extended over ten years. But, in general, much more must be done to extend the predictability of overseas development assistance (ODA).

The innovative finance mechanisms that have recently been launched, such as the International Financing Facility and the international airline solidarity levy, offer a promising complement to traditional development assistance. Several private sector initiatives also carry the promise of increasing resources available to fight these long-term global heath threats.

Willing the means

The G8 must now recognise that even the substantial amounts required over the coming years to halt the pandemics are prudent investments in future global economic growth, social development and equity. Their leadership both in committing and in stimulating long-term commitments of resources at an increasingly ambitious scale is essential for sustaining and further expanding the remarkable progress in the effort they began six years ago.

Funding has been committed on an annual, ad hoc basis, limiting any possible mid- or long-term financial planning

Statement of G8 Health Ministers

Moscow, 28 April 2006

The G8 has a central role to play in co-ordinating the international offensive against communicable diseases, and in preparing for, and preventing, pandemics of avian and human influenza

1. We, G8 Health Ministers met, for the very first time, in Moscow, on 28 April 2006, during Russia's Presidency of the G8 in 2006, to address threats to public health and to discuss the highest priorities for co-operation in our mutual efforts to combat communicable diseases and protect human health. We are pleased that as usual at G8 meetings, the European Union joined us and that Health Ministers from Brazil, China, India, Mexico and South Africa, and representatives of the World Health Organization (WHO), the United Nations Joint Programme on HIV/AIDS (UNAIDS), the Global Fund to Fight AIDS, Tuberculosis and Malaria and the World Bank joined us for a part of our discussion.

2. We welcomed the decision to include the prevention and control of communicable diseases on the agenda of the G8 Leaders' Summit in St Petersburg.

3. We recognise that ongoing epidemics of communicable diseases have a heavy socio-economic impact in addition to the burden they place on health systems.

4. Risks associated with pandemics and newly emerging infections still exist. It is extremely important to strengthen communicable disease global surveillance, detection and identification in terms of global public health. We recognise that improving the health of populations by strengthening health systems, including improved human resource management, enhancing the quality of health care, supporting research and development, providing access to preventive interventions and treatment, is one of the crucial requirements for achieving the Millennium Development Goals.

5. In this regard we commend the work of the WHO in tackling global health issues from all perspectives, including the issues surrounding health workers as published in the *World Health Report 2006*.

6. We note with grave concern that millions of children die annually and half of these deaths are a consequence of communicable diseases, which require prevention and specific treatment.

7. We recognise that improving donor co-ordination will enhance international aid effectiveness to support the fight against communicable diseases.

8. We noted with concern the increasing spread of highly pathogenic avian influenza. We discussed the possible development of a human influenza pandemic that could severely affect all countries of the world.

We believe that priority efforts should focus on the early detection and control of the H5N1 strain of avian influenza at its source as well as on the prevention of and preparedness for a potential human influenza pandemic.

We recognise the importance of pandemic preparedness and prevention through the provision of treatment means, communications strategies, public awareness campaigns, close co-ordination between veterinary and public health authorities, support for and co-operation in research activities and development of new technologies

and new means of treatment. We welcome and support the global early warning system co-ordinated jointly by the WHO, the UN Food and Agricultural Organization (FAO) and the World Organization for Animal Health (OIE).

In order to prevent or delay occurrence of a human influenza pandemic, we should develop our capacities for early detection and containment of an outbreak of the human-to-human infection on national, cross border, regional and international level as recommended at the Conference held in Tokyo on 12-13 January 2006.

We believe the revised International Health Regulations (IHRs), is an important instrument for development of core capacities, the exchange of epidemiologic information, quick mutual response and consultations to prevent the pandemic.

Because the universal application of the IHRs will be beneficial to the world we support their early voluntary implementation by countries and we are looking forward to seeing this document introduced into practice very soon.

In conformity with the IHRs we are committed to closely co-operate with each other and with relevant international organisations in encouraging provision of prompt and transparent exchange of information about and, in accordance with national and international procedures, samples of novel influenza strains with pandemic potential.

We reaffirm our support and commitment to use the WHO-administered Global Outbreak Alert and Response Network.

We will continue to develop our preparedness for a pandemic, including risk communication strategies, medical and public health services, research and development of new technologies including vaccines and new means of treatment. We will share information on our pandemic preparedness plans. We encourage the development of research and technical co-operation with countries that need strengthening of their public health systems, including strengthening laboratory and health human resource capacity to combat influenza.

We welcome the commitment given by the Russian Federation both to increase the capacity of public health systems in Central Asia and to develop collaboration among the public health authorities of this region.

We welcome the political and financial commitments made at the Beijing Pledging Conference of 17 and 18 January 2006 and are looking forward to follow-up reports by the World Bank and action to be discussed and decided upon at the International Partnership on Avian and Pandemic Influenza (IPAPI)/ European Union (EU) Vienna senior officials' meeting on avian and human pandemic influenza on 6-7 June 2006 open to any interested countries and relevant international organisations.

We recognise the leading role of the WHO, FAO, OIE, the role of the UN System Influenza Coordination Office (UNSIC) and international financial institutions in addressing these global threats and commit ourselves to support this work.

9. HIV/AIDS, tuberculosis and malaria remain a major threat to global progress, development and security throughout the world.

At last year's Gleneagles Summit focused on Africa, our leaders agreed to work with WHO, UNAIDS and other bodies to develop and implement a package for HIV prevention, treatment and care, with the aim of as close as possible to universal access to treatment for all those who need it by 2010. We call on the UNAIDS and its co-sponsors to provide reports and updates on global progress towards this goal. We look forward to discussions by the Africa Partnership Forum on means to advance objectives on HIV/AIDS, and stand ready to assist in implementation, as appropriate.

We look forward to the UN General Assembly Review and High Level Meeting on HIV/AIDS, 31 May to 2 June, in follow-up to the 2001 Special Session and the Declaration of Commitment, which we expect will give an additional impetus to international efforts to fight HIV/AIDS.

We take note of coming international events to advance the efforts to fight HIV/AIDS, including the Summit of African Heads of State and Government on HIV/AIDS, TB and Malaria (Abuja, Nigeria, May), the Conference on HIV/AIDS in Eastern Europe and Central Asia (Moscow, the Russian Federation, May), and the 16th International AIDS Conference (Toronto, Canada, August).

We support the STOP-TB partnership's Global Plan, 2006-2015, which is underpinned by the new STOP-TB strategy of WHO, which also includes measures against TB/HIV co-epidemic and the serious threat of multidrug-resistant TB.

Malaria remains a major problem in many areas of the world. We will continue to support effective interventions and we consider the emergence of drug resistance to be a concern. We welcome the Roll Back Malaria Partnership of the WHO, UNICEF, the World Bank and other international organisations.

We support the efforts of WHO, UNAIDS, the World Bank and the Global Fund to Fight AIDS, Tuberculosis and Malaria, in collaboration with civil society, the private sector and governments in combating these diseases.

We recognise the need to mobilise resources, both financial and human, domestically and internationally, to support the fight against these diseases, through a variety of means, including traditional development assistance, and innovative financing mechanisms designed to raise revenue from non-traditional sources, which promote investment in the development and production and better accessibility of drugs, vaccines and microbicides against HIV/AIDS, TB, malaria and other diseases. We note progress in implementing the Sea Island commitment to establish a Global HIV Vaccine Enterprise. We emphasise the critical need for continued financing through the Global Fund to Fight AIDS, Tuberculosis and Malaria.


Natural disasters have a long-term impact on public health

10. We reaffirm our determination to support the Global Polio Eradication Initiative. There are sound reasons to believe that as a result of unprecedented measures taken by the international community we are now, as estimated by the WHO, at the threshold of eradicating this disease. We will continue to work with bilateral and multilateral institutions and other stakeholders towards reaching the goal of declaring the planet polio-free in the near future.

With the achievement of eradication we encourage WHO to explore the feasibility of extending the Polio Surveillance Network to enhance surveillance for other communicable diseases of public health importance.

11. The frequency and severity of natural and man-made disasters is a global concern. These disasters have far reaching and long lasting impacts on the overall health of affected populations, their health care and public health systems and economies.

These impacts can be mitigated significantly through improving co-ordination of institutions and organisations that work for the health components of the short-term international relief efforts.

We recognise the importance of effective co-ordination between the bodies established within the UN system such as the WHO, the UN High Commission on Refugees, the UN Office for Coordination of Humanitarian Affairs to ensure that efficient and effective systems can be rapidly deployed and co-ordinated to manage relief efforts, including improved health action in crisis.

12. We are convinced that research and development, including those in the field of prevention and treatment of communicable diseases, is an integral part of comprehensive measures to control infections. In this connection, we intend to continue to collaborate on bilateral and multilateral levels with the public and private sectors and to involve developing countries in their efforts to develop their science and technology capacity.

13. In the modern world, the problems caused by communicable diseases cannot be solved only in individual countries or regions. We agree that bridging the gap in levels of capacity, for example in research, human resources, and development of health systems in all countries is an important element in ensuring substantial progress to the control of communicable diseases worldwide.

Building human capital: an inclusive charter for economic growth

Frannie Léautier, World Bank Vice-President for the World Bank Institute

More than ever, the wealth of nations depends on effective education and training. That means much stronger partnerships between education systems, business and government

Highly skilled workers are the currency of the new international system of wealth creation, and educational systems the new mints

The forces of globalisation and technological advance have spurred a revolution in the production, transmission, exchange, and application of knowledge. Gone are the clear lines dividing school, factory, lab, boardroom and ministry; gone the distinction between one's time in school and one's time at work, and even between one's time at work and one's time at home. In this century, the countries that derive the most from globalisation will be those in which the systems of education, business and government can co-operate synergistically to educate, train, and put to work the human capital – the people – whose talents make the wealth of nations. Countries that can do this while also providing a high quality of life for their citizens will be even further ahead.

Nations that fall short of the necessary co-ordination of those three formerly separate spheres will not derive the full benefits from the trading opportunities created by globalisation and technological innovation. They will not benefit from the spillovers, linkages and multipliers that have always resulted from prescient investment in education. They will always remain on the receiving end of innovation generated elsewhere.

Trade, technology and knowledge

Improvements in transportation and communications have shrunk the time it takes to learn, conceive, design, produce, sell and consume. That contraction of product cycles and supply chains defines globalisation and competition in the world today, where trade now represents some 60 per cent of GDP, up from less than 40 per cent just 15 years ago.

The dynamic process of innovating in one place, manufacturing in another and selling in a third has brought with it constant restructuring at the global, country and company levels, creating tremendous opportunities for enhancing growth and competitiveness, but also accentuating the risk that a participant will fall behind if it cannot keep up with the pace of rapid change. Countries' competitiveness depends more than ever on their ability to access, adapt, use and create knowledge – just in time.

Knowledge embedded in societies, in culture and norms, in processes and technologies – even the knowledge of how to govern peacefully – has always played an important role in the development of countries. Today it is more important than ever.

Why?

Because highly skilled workers are the currency of the new international system of wealth creation, and educational systems the new mints. When combined with visionaries in public life (champions, leaders) and in private life (entrepreneurs), highly skilled workers have the gift of King Midas: what they touch turns to gold.

Leaders and entrepreneurs may be born; but most other highly skilled workers – the people most in demand in the technology-intensive sectors that set the pace for world growth – must be educated. In school first, then at university, in their homeland or abroad, often with the benefit of some form of public subsidy. Their education continues in the firms that hire them. They are mobile, moving to find the best education, the best job, the best outlet for their skills.

Low-skilled workers also migrate, seeking opportunities in wealthier countries for a better life for themselves and their families.

Eventually many who migrate dream of going home or investing in their home country, and many realise that dream if opportunities are open to them (see box below).

Strengthening education for the

What goes around comes around – 'brain circulation'

Through 'brain circulation', a synthesis of the older notions of brain drain and gain, emigrant diasporas are contributing to the development of their home countries. Governments in the countries of origin and of naturalisation of these groups of successful transplants are well advised to co-operate to promote 'brain circulation networks' that enable expatriate talent to benefit the country of origin without returning permanently to live there. Because they know their home countries, diaspora members have a built-in ability to mitigate risk. Personal trust among members of cross-border investor networks further reduces transaction costs. Already clear from the experience of China, India, Israel, Korea and Taiwan, the rewards of such programmes are now being extended to highly skilled scientists, engineers and technicians born in other countries.

Middle-income economies such as Argentina, Chile and Mexico recently have begun attempts to establish their own brain circulation networks. Their skills base abroad is not as massive as those of China, India or even Korea. But establishing vibrant brain circulation networks is not a numbers game. What counts is the dedication of a few influential and successful professionals abroad, coupled with the willingness of their home countries to team up with such professionals on long-term demonstration projects.

Source: Yevgeny Kuznetsov, Senior Economist, Knowledge for Development Program, World Bank Institute.
ykuznetsov@worldbank.org

A lifelong learning system is one that encompasses learning from early childhood to retirement

knowledge economy implies building higher-level skills to compete in global markets. But there is no 'cookie cutter' approach that can be uniformly applied across countries. Successful education systems vary widely: their management may be centralised or decentralised, and provision may be public or private. No single education model suits every country or region of a country.[1]

However they may be institutionalised, strategies for investing in education, training and know-how need to be highly discerning if the desired impact on growth is to be achieved. It is crucial to link efforts to develop education with other sectors of the economy, because investments in education and the generation of economically relevant knowledge, skills and competencies give rise to a wide range of non-economic benefits – such as improvements in public health, parenting and community participation.

Learning: a lifelong commitment

Human capital is created in diverse contexts, in the family and home, in communities, in the workplace, and in schools. With rapid technological change, it now must be nourished through lifelong learning as well. A lifelong learning system is one that encompasses learning from early childhood to retirement and includes formal training (schools, training institutions and universities) and informal learning (on-the-job training and skills learned from family members or people in the community).

To build an effective system of lifelong learning, countries will need to make significant changes in the present design, financing and governance of education and training. In the new matrix, governments are no longer likely to be the main provider of education, particularly at the post-secondary stages, but they are likely to be the architects and facilitators of a complex system characterised by multiple pathways to education, multiple providers and many non-traditional groups of consumers.

To fulfil its new role, the government must set the rules of the game, develop effective partnerships with non-governmental players, create a space in which the diversity of ideas is brought to bear on decision-making, and promote policies and regulatory frameworks that favour lifelong learning by:

- opening career pathways for working adults and the unemployed;
- catering to lifelong learners of all ages, including apprentices;
- building modularity into academic and vocational education and training, and ensuring that certified credits can be transferable within and across borders;
- ensuring transparency in standards for assessment of competency and qualification;
- working with the private sector and other players to provide transparent, timely and accurate information on the changing market for human capital; and
- providing incentives for private sector investment in education and training at all stages of the lifelong learning path.

Individuals and societies must learn how to learn so that they can be ready for the next series of challenges

Communities of practice: a delicate balance

One of the most promising approaches to building individual capacity and leveraging the skills of a group of individuals is the use of communities of practice (COPs). COPs are informal groups of professionals that get together (perhaps virtually) to learn from each other. They form naturally as employees seek out others with similar experience who can help them to solve problems and develop new and better approaches to their common tasks.

Accountants talk to accountants, engineers talk to engineers, even if they do not work in the same department: they find each other. The central challenge of COPs is that they do not like to be overly managed. If the natural desire for peer learning is obstructed by rigid requirements, it will die. Therefore, management must strike a delicate balance between encouraging their employees to form and make use of COPs, while also ensuring that the work of COPs is contributing to organisational objectives.

Knowledge management in company and nation

Individuals and societies must *learn how to learn* so that they can be ready for the next series of challenges. In response to the pressure of competition, corporations, governments and nonprofits seek ways to amplify the value of their own knowledge. Much of this focus on ‘knowledge management’ (KM) has been on the technical dimensions of codifying, capturing, and making knowledge available to employees who need it, such as through communities of practice (see box).

Bristol-Myers Squibb has been at the cutting edge of using KM practices to improve efficiency, encourage innovation and shape work environments from which new ideas are likely to emerge. By applying interactive tools, establishing networks for employees facing similar challenges and rewarding the sharing of knowledge, the company has eliminated redundancy, improved morale and brought products to market faster – while realising major returns on investment. Once thought of as a fad that would die off, knowledge management has become a core competency for firms in a globalised world.

Digital capacity is another key area. Microsoft is promoting digital inclusion around the world, working with governments, industry leaders, and community organisations to offer skills training, ranging from basic computer skills to the most advanced professional training and certifications. By 2010, through innovative technologies and partnerships, Microsoft plans to provide ICT training to a quarter of a billion people previously underserved by technology.

You cannot participate in the knowledge economy if you are illiterate. In India, illiteracy is being tackled at low cost. The computer-based functional literacy programme (CBFL), initiated by the Tata Group, uses a mixture of methods – teaching software, multimedia presentations, and printed materials – to teach people to read in a fraction of the time required by conventional means. CBFL teaches students a 300-500 word vocabulary in 30 to 45 hours, setting them on the path to acquiring other literacy skills, including writing and arithmetic ability.

From person-to-person networks to network-to-network supra-networks: working with the US Agency for International Development, the United Nations Development Programme, and the Japanese International Cooperation Agency, Cisco Systems has extended its US programme of Networking Academies to venues in Africa and Asia. The partnership now brings sophisticated IT and network management skills to 200 locations in 41 countries to create employment and fill worldwide demand for an estimated 2 million skilled computer network operations and management professionals. Each academy builds an alliance with local partners, expanding its potential to create jobs and promote business development.[2]

WBI's Knowledge for Development Programme

The World Bank Institute's Knowledge for Development Programme (K4D) helps countries to access and use knowledge to strengthen their competitiveness. The Programme works with World Bank clients to design and develop knowledge strategies in domains that include the economic and institutional regime, education, innovation and ICTs.

Noteworthy recent activities include the launch of a major knowledge economy report on India*, as well as work on lifelong learning in China and policy studies on Mexico, Slovakia and Tanzania.

K4D's web-based benchmarking tool, the Knowledge Assessment Methodology (KAM, www.worldbank.org/kam), helps countries contemplating the transition to the knowledge economy to compare themselves with neighbours and competitors. The KAM consists of a set of 80 structural and qualitative variables that serve as proxies for the elements critical to the development of a knowledge economy. The comparison has been undertaken for 128 countries, among them most of the developed OECD economies and more than 90 developing countries.

* Carl Dahlman, Anuja Utz, *India and the Knowledge Economy: Leveraging Strengths and Opportunities* (World Bank, 2005).

Mobile degree programmes. One of the most important advances in the use of technology for education is the rapid expansion of access to high-quality university degrees and professional certification, regardless of location. For example, the Association of Chartered Certified Accountants, based in London, offers 'e-qualifications' for anyone interested in developing their professional skills in accountancy.

Exporting integrity. In Russia, Ukraine, Kyrgyzstan and Kazakhstan, an alliance of non-governmental accounting organisations and official aid donors is helping to ensure the business integrity needed for international investment, economic growth and government budget management. The Certified International Professional Accountant (CIPA) Alliance began by implementing internationally certified accounting programmes in Kazakhstan, Kyrgyzstan and Ukraine – since expanded to Russia and eastern and central Europe. When the former Soviet Union began its transition to a market system, concepts such as tracking finances and budgets, depreciation and other international accounting practices were virtually unknown. Continued use of Soviet-era accounting principles and a lack of professionals skilled in international accounting principles were crippling the growth of successful enterprises and regional employment, discouraging foreign investment and slowing the region's integration into the global economic community. CIPA aims to change that.

Becoming a knowledge economy

Good governance and quality of life are intricately linked[3]. A high level of human capital contributes not only to economic growth in knowledge-based economies, but also to people's ability to participate in their own development. Educating better citizens – citizens who know the value of being informed and how to gather information – is at least as important as making workers more productive. For that reason, national education authorities should tear a page from the corporate book and begin mainstreaming knowledge management principles in national education systems. To become a knowledge economy, countries should consider forming inclusive partnerships – uniting government, business, education and civil society – to make the best possible use of the skills and talent available to them. They also must strive to develop, attract and retain more talent – by providing a peaceful, secure and inclusive society that promotes creativity; by fostering competition to allow new skills to emerge; by rewarding teamwork in the workplace; and by providing opportunities for lifelong learning.

To become a knowledge economy, countries should consider forming inclusive partnerships to make the best possible use of the skills and talent available to them

[1] See *World Development Report 2004 – Making Services Work for Poor People,* chapter 7, "Basic Education Services" (World Bank, 2004).

[2] Source for Cisco Academies and CIPA: *The Global Development Alliance: Public–Private Alliances for Transformational Development* (USAID, 2006).

[3] See *Cities in a Globalizing World: Governance, Performance, and Sustainability,* chapter 3, "Globalization and Urban Performance" (World Bank, 2006).

Securing the future through education

Ruth Kagia, Education Director, World Bank

G8 leaders need to take action on a number of fronts if the world is to meet the targets set at Gleneagles, Kananaskis and Monterrey

Galvanising international action to strengthen education, especially in low-income countries, is not just morally right, it is also good business

As countries everywhere, rich and poor, strive to improve the welfare of their citizens, they are turning to education as a cornerstone of their strategy. However, this is not new. Education is a bedrock of social and economic transformation: it is a critical complement to technological advance and is closely associated with the rise in living standards since 1960. What is new, however, is the seismic change being caused by the complex interplay between education, knowledge, technology and skills.

The first change is a fundamental shift in the core drivers of economic growth. Fifty years ago, competitiveness and prosperity were driven by access to natural resources and abundance of labour. Today, the prosperity of a nation depends on how effectively it uses its human resources to raise productivity and nurture innovation (see article by Frannie Léautier, page 74). Second, the explosion of knowledge, coupled with the global movement of ideas, makes it impossible fully to anticipate the nature of future innovations or wager on which countries will be the technological or economic leaders of tomorrow. And third, the surge in global interconnectivity makes it possible for successful firms to tap into the best human resources available anywhere in the world, but it also means that actions by one nation can affect the lives of others, thousands of miles away.

Education is key to creating, adapting and spreading knowledge. The spread of literacy progressively broadened people's horizons, bringing in its wake religious, social and political revolutions across Europe and Asia which underpin much of the political and economic systems of these regions to this day. Gone are the pre-printing press days when monks and priests were the only gatekeepers of information and knowledge; we have passed out of the age of the tenth century Grand Vizier of Persia, Abdul Kassem Ismael, who would carry his entire library of 117,000 books on his 400 alphabetised camels.

The sheer explosion of knowledge and the speed at which it travels has made it impossible to control ideas, or to memorise them. To create and spread knowledge, countries need to develop teaching and learning environments that nurture enquiry, adaptability, problem solving and communication skills. But mastery of these skills is quite low in many countries. For example, 17 per cent and 8 per cent of fourth-grade students in Argentina and Morocco, respectively, demonstrated the skills needed to recognise and state relationships between clearly related sentences and to understand the overall message of the story (Progress in International Reading Literacy Study – PIRLS, 2001).

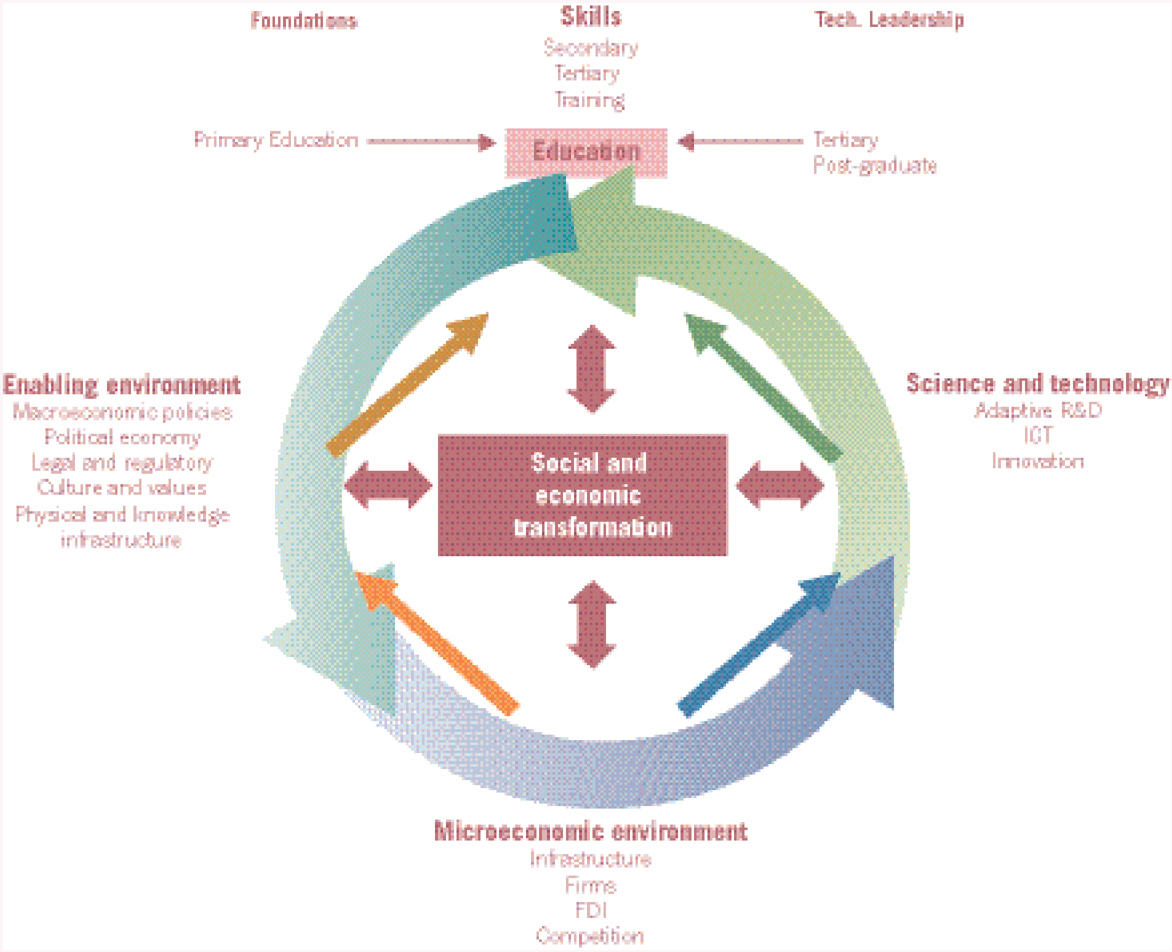
Education is also the most widely accepted way of improving the asset base of the poor: it has been proven that those with better education earn more throughout their lives. It is estimated that a high school drop-out in the United States of America earns nearly US$260,000 less over a lifetime and pays US$60,000 less in taxes (present value in current dollars) compared to those who graduate. Educated men and women also participate more fully in the civic and political lives of their communities, a fact which Thomas Jefferson was keenly aware of when he wrote: "Whenever the people are well informed, they can be trusted with their own government."

Female education is the wisest investment of all: it is inversely related to teenage pregnancy, child mortality and morbidity. Each year, more than 13 million girls aged 15-19 give birth, and every 60 seconds, six young people under the age of 25 are infected with HIV. Educating young people through to the end of high school would not only dramatically reduce the rate of teenage pregnancy, it would also realise education's promise as one of the best 'vaccines' against HIV/AIDS. But how can the cycle of pregnancy, HIV/AIDS and poverty be broken when a child who was five years old in 2003 can expect to receive more than 19 years of education in Australia, Finland or the United Kingdom, while a five-year-old from Mozambique, Mali or Cambodia can expect to receive no more than five years?

Good quality education means a secure future for young people, who are tomorrow's global resources – yet there are 100 million children (57 million of whom are girls) of primary school age who are not in school because schools are either not available or the opportunity cost of attending is too high.

In St Petersburg, G8 members have yet another opportunity to follow through on their 2005 Gleneagles commitment to provide additional resources for education to countries that are well governed. Though some G8 members have taken significant action, the total response falls far short of the promise. Although progress has been made, not all children will enrol in school by 2015 without an intensification of efforts by all players.

Chart 1: Education dynamic economies



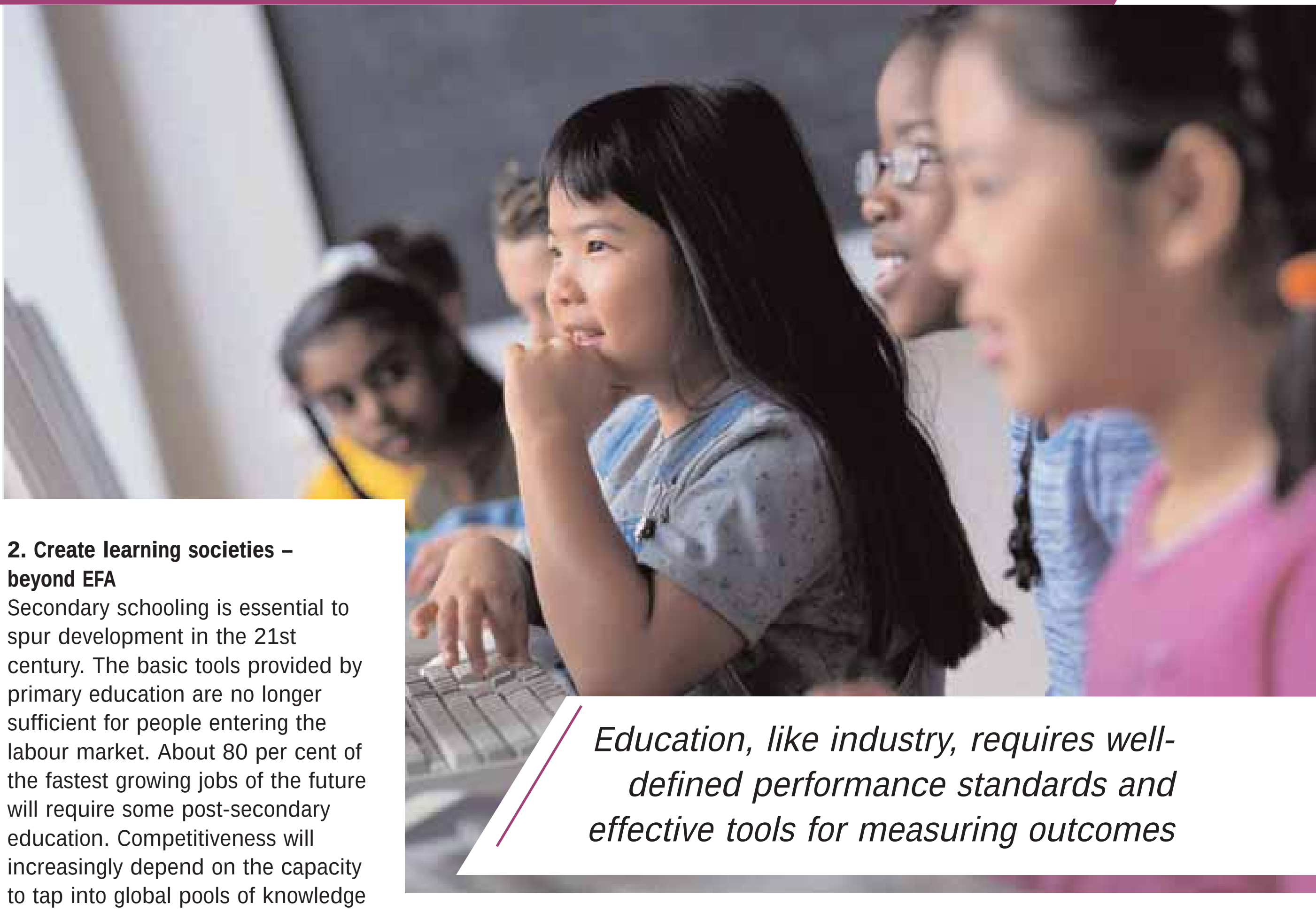
Education – a tide that lifts all boats

At a recent press conference, UK Chancellor Gordon Brown explained the rationale for a big push on education: "We shall be the first generation in history to have provided education for all the children born in the world" (April 2006). For the G8 and other world leaders, galvanising international action to strengthen education, in all countries, especially in low-income countries, is not just morally right, it is also good business: it widens the pool of skills and innovation; it broadens opportunities for employment and wealth, thereby stemming the flow of economic refugees; it helps create free and open societies and helps cultivate global peace. The meeting in St Petersburg, therefore, could help bolster international efforts to create educated and productive societies in several ways:

1. Strengthen the foundations for growth and further education

The universal benefits of an educated global society, and the potentially catastrophic costs of an expanding education gap, make it essential that all countries achieve the Education for All (EFA) goal of primary school completion for all children by 2015. However, if current trends are maintained, some 44 countries will not achieve EFA. Achieving EFA will require strong country commitment and leadership, as well as predictable and sustainable external assistance. This was the promise of Kananaskis and Monterrey and the basis on which the EFA Fast Track Initiative (FTI) was established in 2002.

FTI was created to increase aid effectiveness and accelerate progress toward EFA by filling existing gaps in financing, policy, data and capacity. FTI helps donors provide financial and technical support in a predictable manner to countries either through regular channels or through the FTI Trust Funds. At the same time, developing countries are responsible for crafting and implementing credible national education plans and maintaining commitment to good governance. But FTI, and EFA more generally, remain grossly underfunded, mainly because the countries that are furthest behind on EFA lack adequate technical and financial resources. Worldwide estimates indicate that between US$5-10 billion per year of external financing would be required for basic education through 2015 for all low-income countries to achieve universal primary education. Overall donor assistance for basic education in low-income countries has increased significantly in the past three years, reaching over US$3 billion annually, but too much of it is in the form of tied aid or is not targeted to countries and issues that are most deserving of support.



2. Create learning societies – beyond EFA
Secondary schooling is essential to spur development in the 21st century. The basic tools provided by primary education are no longer sufficient for people entering the labour market. About 80 per cent of the fastest growing jobs of the future will require some post-secondary education. Competitiveness will increasingly depend on the capacity to tap into global pools of knowledge and leverage the best human resources available in the world, as data on migration is beginning to demonstrate. The Global Commission on Migration estimates that in 2005 there were nearly 200 million international migrants, including 9.2 million refugees. Nearly one in ten tertiary-educated adults born in the developing world reside in North America, Australia or Western Europe and between a third and a half of the developing world's science and technology personnel live in the developed world.

Countries wishing to participate in the evolving knowledge economy must invest in dynamic, holistic education systems, which begin with early childhood development and basic education, through to secondary and tertiary education and on to lifelong learning opportunities. Such education needs to be located within the nation's broader macroeconomic and social context and linked to a robust research and innovation framework. The chart (see page 82) presents these relationships graphically.

Education, like industry, requires well-defined performance standards and effective tools for measuring outcomes

3. Bolster excellence in education and establish internationally comparable indicators of education quality
Education, like industry, requires well-defined performance standards and effective tools for measuring outcomes. Internationally comparable indicators of excellence in post-basic education remain elusive even though the labour market is increasingly putting a premium on problem-solving skills, inter-sectoral skills, communication and language skills, and information technology skills. International assessments such as PIRLS, and TIMSS (Trends in Mathematics and Sciences Study) have been helpful in evaluating the extent to which national and transnational goals are being achieved. They are, however, limited to only a few countries and are not well suited to low-income countries. The G8 could usefully support the expansion of the geographical coverage of such systems and capacity building in assessments for low-income countries.

World Bank and education

It is against this backdrop that the World Bank supports education in developing countries. EFA is premised on a two-pillar strategy of building the climate for investment, jobs and sustainable growth; and empowering poor people to participate in development. Education programmes are broad-based and holistic, covering all levels of education, situated in country context and focused on results. The World Bank has a portfolio of US$8.4 billion in 144 education projects in 86 countries. It transfers about US$2 billion a year to support development and implementation of policies and reforms, strengthen institutions and service delivery, and expand quality. But it cannot do it alone. Its success lies in its partnerships with national and international stakeholders who help develop and implement important agendas such as the G8's education initiative of Kananaskis, which was built upon in Gleneagles, and which, it is hoped, will be strengthened in St Petersburg.

Partnerships: are we there yet?

Amir Dossal, Executive Director, United Nations Fund for International Partnerships

Creative public-private partnerships with business, foundations and NGOs are essential not only for traditional developmental priorities but also to meet new challenges such as pandemics and global energy needs

"Creating wealth, which is business's expertise, and promoting human security in the broadest sense, the UN's main concern, are mutually reinforcing goals. 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."

UN Secretary-General Kofi Annan

Partnerships are important because no one government or institution can go the distance alone

Since meeting at Gleneagles, member states of the G8 have witnessed the rise of new global challenges and the intensification of old ones. The Russian Federation is to be applauded for focusing on global energy security, infectious diseases and education at this year's summit, and for taking this opportunity to witness the progress made in leveraging government efforts to address these problems through public-private partnerships with business, foundations and NGOs. The constant striving to develop new and stronger partnerships, which leverage the resources, the expertise, and the creativity of governments and civil society is particularly important in a global world where traditional boundaries between what is seen as public versus private responsibility become increasingly blurred.

Partnerships are important because, as recent events have underscored, no one government or institution can go the distance alone. Partnerships need to be developed between governments, UN agencies, international financial institutions, bilateral development agencies, the private sector and civil society. The rise of old and potentially new pandemics and the new impetus to think together about the link between global energy needs, security and the environment, make it incumbent on all of us – government leaders, policy makers, business people, global citizens – to think large, to work aggressively, to partner creatively.

In recent years the United Nations has increased its efforts to foster partnerships, recognising that they have become the new way of encouraging sustainable development. The last decade has witnessed the creation of numerous global initiatives, a number of which have been based on the public-private partnerships platform. Increasingly, there is recognition that economic empowerment is the key to development. 'Wealth creation' and 'poverty alleviation' are the two sides of the same coin. The private sector, and indeed the rest of civil society, has lots to offer – we can benefit from its leadership skills as well as from its expertise in management and logistics and its infrastructure systems. At the same time, the public sector can provide an enabling environment for business to prosper while also meeting its social responsibilities of looking after its citizens.

Ted Turner's visionary support of United Nations causes has been a clear demonstration of how public-private partnerships can have a major impact on international development. His extra budgetary contributions have created opportunities for innovative programming and new ways of alliance-building. This has allowed new partners to come forward to collaborate with the United Nations system in support of collective global action. Since its establishment in 1998, UNFIP's partnership with Ted Turner's UN Foundation has channelled over US$810 million into development programmes and activities, working with 30-plus UN entities in 120 countries. Through the grant-making process, the UN Foundation and UNFIP have made it a priority to encourage inter-agency and multi-agency co-operation at the country level, making it possible for government ministries and civil society organisations in programme countries to collaborate in new ways and improve the outcome of many programmes and projects.

The following is a review of some of the most exemplary and effective partnership efforts on global issues affecting energy, health and education.

Childrens' health

The Global Polio Eradication Initiative – launched in 1988 and spearheaded by the World Health Organization (WHO), Rotary International, the US Centers for Disease Control and Prevention (CDC) and UNICEF – has reduced the incidence of polio by more than 99 per cent. The work of the polio partnership to eradicate polio has been guided by a series of multi-year strategic plans. The Global Polio Eradication Initiative Strategic Plan 2004-2008 outlines the key activities required to eradicate polio once and for all. The four key objectives and milestones include:

- Interrupting polio virus transmission (2004-2005)
- Achieving certification of global polio eradication (2006-2008)
- Developing products for the Global Oral Polio Vaccine (OPV) Cessation Phase (2006-2008)
- Mainstreaming the Global Polio Eradication Strategy (2009 and beyond).

Part of this success has been due to an innovative financing solution where UNF/UNFIP were able to promote the use of 'buy-downs' of low-interest loans to generate grants from the International Development Agency (IDA) of the World Bank to expand resources available for the polio effort. A buy-down converts a World Bank loan to polio-endemic countries into a grant to purchase polio vaccine for immunisations, enabling poor countries to address immediate polio eradication needs without adding to their debt burden.

Through 2005, investments from Rotary International and a number of other NGOs and foundations secured close to US$1 billion for this effort. By the end of 2005, Egypt announced the eradication of polio in the country and India and Pakistan recorded their lowest levels ever of polio transmission.

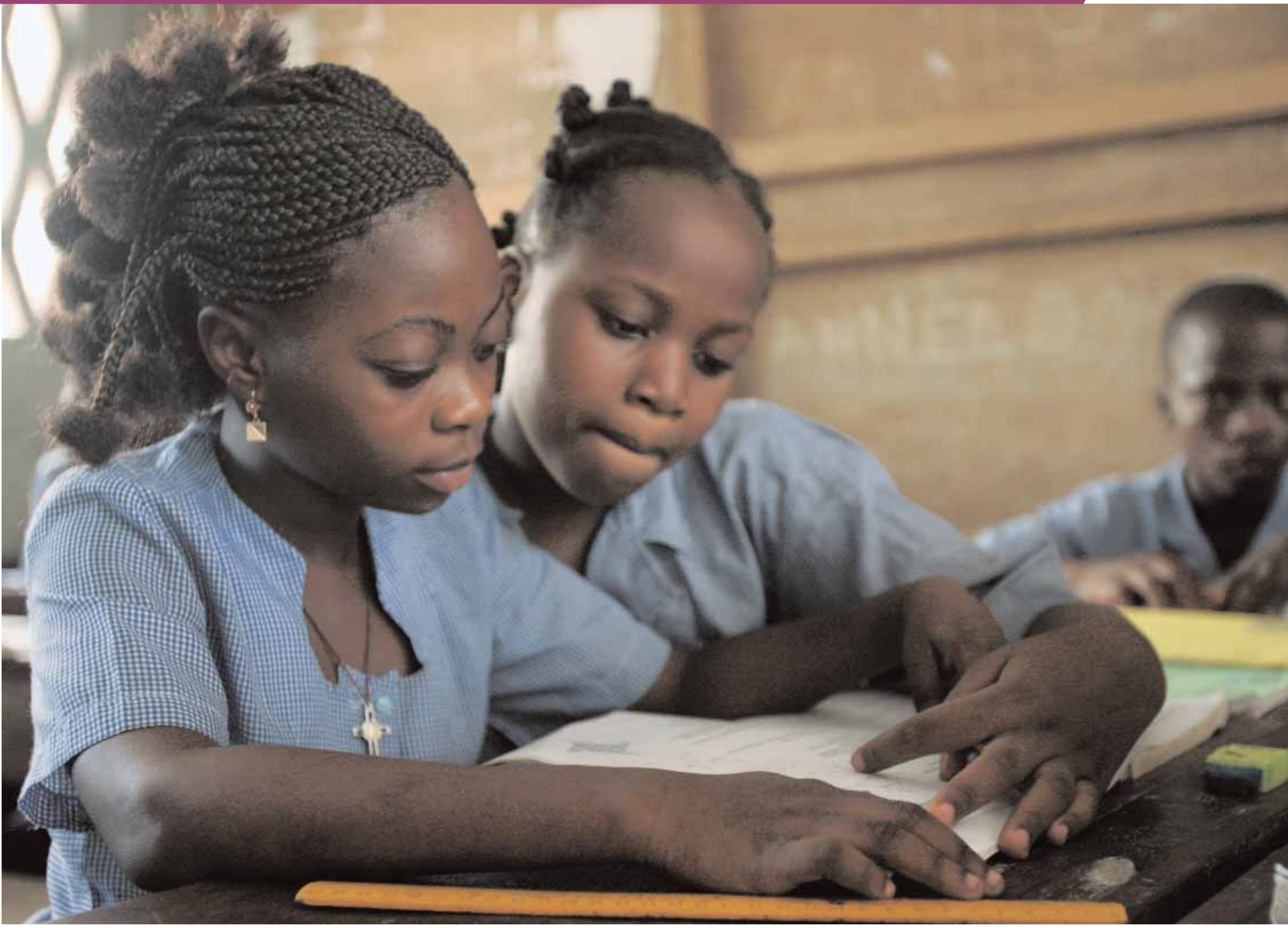
We can benefit from the private sector's leadership skills, expertise in management and logistics, and infrastructure systems

Unprecedented financial support from long-standing and new donors ensured ongoing intensification of eradication activities in Africa and Asia. The challenge is now to maintain political will in light of a fading disease and ensure sufficient multi-year funding commitments to help interrupt the final chains of endemic transmission, to respond rapidly to outbreaks and prepare for the post-eradication phase.

The **Measles Initiative** is a partnership formed to reduce sustainably and control measles deaths. Launched in 2001, the Measles Initiative plays an important role in providing technical and financial support to measles priority countries and strengthening political and social commitment in the fight against measles. In March 2006, WHO and UNICEF announced that global measles deaths had dropped by 48 per cent from 871,000 in 1999 to an estimated 454,000 in 2004. The largest reduction occurred in sub-Saharan Africa, where estimated measles cases and deaths dropped by 60 per cent. A key factor contributing to progress in reducing measles deaths has been vaccination efforts in over 40 countries.

The Measles Initiative is spearheaded by the American Red Cross, Centers for Disease Control and Prevention (CDC), the United Nations Foundation, United Nations Children Fund (UNICEF) and the World Health Organization (WHO). Other key partners include the Global Alliance for Vaccines and Immunization (GAVI), the Bill and Melinda Gates Foundation, Vodafone Group Foundation, Canadian International Development Agency, Japanese International Agency for Cooperation, UK Department for International Development, Norwegian Agency for Development Cooperation, and the International Federation of Red Cross and Red Crescent Societies.

In a related partnership, the **UNICEF/WHO Global Plan for Reducing Measles Mortality 2006-2010** sets a new ambitious goal of 90 per cent reduction in global measles deaths by the end of 2010. This goal is achievable but requires additional financial resources. Over 80 per cent of the remaining measles disease burden occurs in just six countries: Nigeria, DR Congo, Ethiopia, India, Pakistan and Bangladesh.



Helping to make adolescent girls a global priority

One in five people in the world are adolescents – the largest youth generation in the history of the world at more than 1 billion strong, with 85 per cent of them living in developing countries.

With the rapid spread of the HIV/AIDS epidemic in Africa, young married girls have become the group most vulnerable to infection by older, sexually active husbands, and young women in Africa aged 15-24 are two and a half times more likely to be infected than young men of the same age. Therefore, reversing this trend and providing protection for adolescent girls is of critical importance. To address this challenge, UNF and UNFIP are collaborating with UN agencies, the Nike Foundation, the Domini Global Giving Fund, the Population Council, NGOs and others to highlight the dangers of child marriage through a country-focused advocacy and services initiative. As part of this initiative, in early 2006, UNF sponsored a US Congressional staff trip to Ethiopia to showcase the work of the United Nations and the Ethiopian government on child marriage.

This has been nothing short of groundbreaking, not only by underscoring the needs and aspirations of this critical demographic cluster, but also in promoting sustained attention and interagency co-operation on adolescent girls at the UN. In addition to on-the-ground impact, the funding has helped strengthen policy guidance and encourage co-operation across UN agencies.

Education: investing in our future

The United Nations Girls' Education Initiative (UNGEI) is a ten-year sustained campaign to improve the quality and availability of girls' education through a collaborative partnership of different entities within and outside the United Nations system. Launched in April 2000 at the World Education Forum in Dakar by United Nations Secretary-General Kofi Annan, its goal was to narrow the gender gap in primary and secondary education by 2005 and to ensure that, by 2015, all children complete primary schooling, with girls and boys having equal access to all levels of education.

UNGEI is a partnership that embraces the United Nations system, governments, donor countries, non-governmental organisations, civil society, the private sector and communities and families. UNGEI provides stakeholders with a platform for action and galvanises their efforts to get girls into school.

The Initiative is designed to contribute to the elimination of gender discrimination and gender disparity in education systems through action at global, national, district and community levels. It brings together existing resources at the country level and uses them more efficiently and effectively. The Initiative starts with countries committing themselves to take action. It then focuses on areas of intervention that are known to produce results, are supported by a consolidated effort of all development partners, and build on good practice and experience.
www.ungei.org

Environment / climate change: hastening a new energy future

The work of the United Nations Foundation/UNFIP with the UN Environment Programme (UNEP) helped design and deploy the **African Rural Energy Enterprise Development (AREED)** project. This project combined small amounts of start-up capital with extensive business training to help entrepreneurs create viable energy service enterprises. More than 40 enterprises have been funded in Africa, Brazil and China. As a result of these initial successes, the Sustainable Energy Finance Initiative was established to encourage the financial community to expand financing efficient models of clean energy development. UNF/UNFIP made possible the creation of a highly successful Institutional Investors Summit on Climate Change. Summits in 2003 and 2005 convened members of the financial community at the UN to examine the investment risks and opportunities presented by global warming. At the 2005 Summit, institutional investors representing US$3 trillion in assets issued a ten-point plan on disclosure of climate risks, and pledged to invest US$1 billion in clean energy technologies.

Ecotourism is now a valuable growth sector for several developing economies

Peace, security and human rights

In early 2005, 16 Arab nations joined the OECD and UNDP to launch the **Initiative on Good Governance for Development in the Arab Countries.** Arab officials and OECD representatives agreed on a three-year plan to improve governance in six areas: civil service and integrity; the role of the judiciary and enforcement; e-government and administrative simplification; the role of civil society and media in the reform of the public sector; governance of public finance; and public service delivery, public private partnership and regulatory reform. This marks the first time that Arab states have agreed on a plan to work individually, as a region and with the international community, on good governance. The initiative is a breakthrough for all three.

The international community can build a platform to provide a one-stop service for partnerships in the developing world

Innovative partnerships for development

An outgrowth of the Monterrey Financing for Development conference, the **Global Information Clearinghouse Initiative** is designed to foster government-private sector partnerships by providing low-cost access to relevant, timely and reliable information and analysis on emerging market trends and opportunities, political risk assessments, crisis prevention policies, financing mechanisms and access to expertise and partnerships for policymakers, investors and civil society.

This model seeks to bridge costly gaps in information sharing and trust between private sector investors and developing country governments in areas critical to the mobilisation of private sector capital for development. By providing comprehensive and neutral coverage of economic risks and opportunities in developing countries, it acts as a one-stop platform for (i) these countries' investment promotion efforts; (ii) their major creditors and investors' due diligence and monitoring functions; and (iii), third parties' access to the full range of information and analysis on macroeconomic, financial, and political indicators. Early financial support for the Global Information Clearinghouse comes from the Swiss Government and the Ford Foundation.

www.globalclearinghouse.org

The **Equator Initiative** is a global partnership among the UN, governments, civil society, businesses and foundations to build the capacity and raise the profile of community enterprises in the tropics that link economic improvement and job creation with protecting the environment.

The initiative shows how conserving biological diversity has become part of the business bottom-line for these thriving local enterprises, ranging from sustainable forestry and fishing to organic agriculture and ecotourism.

In addition to providing awards, the Equator Initiative plans to develop local capacity through community-to-community learning exchanges and contribute to the creating and sharing of knowledge to make an impact on policy and public awareness.

www.equatorinitiative.org

The **Growing Sustainable Business Initiative** facilitates business-led enterprise solutions to poverty in advancement of the Millennium Development Goals (MDGs). These enterprise solutions accelerate and sustain access to needed goods/services and livelihoods opportunities.

Conceptualised by the private sector as a key response to the 2004 report *Unleashing Entrepreneurship* by the Commission on the Private Sector and Development, the GSB initiative engages the private sector in innovative partnerships grounded in market-based incentives, often around new business models, to accelerate progress towards the MDGs. It leverages UNDP's unique capacity to create a neutral 'space' at country level where information can be shared, issues raised, and appropriate local partners brought together to solve a specific problem. The GSB facilitates 'enterprise solutions', where profit and incentives justify real investment and where financial sustainability is embedded in the design. To date, the GSB is active in seven countries.

Business-led enterprise solutions to poverty are challenging and are often perceived as representing unquantifiable risk and additional costs to business, causing potentially interested investors to place opportunities on the 'too complicated' pile. The value proposition of the GSB to business is to help address these challenges at relevant points in the investment cycle and thus reduce the risks and costs associated with the investment.

www.undp.org/business/gsb

Moving from words to action

Political will in supporting and enabling partnerships that enhance the contribution of non-governmental organisations, civil society, the private sector and other stakeholders in global issues, is critical. Moving beyond policy-setting and commitments to funding these initiatives, governments are best placed to realign their own efforts and the co-ordination of their various agencies at both the global and local levels to address key cross-cutting challenges facing us all. The international community, repository of lessons learned and best practices, can build a platform to provide a one-stop service for partnerships in the developing world. A large number of foundations and multilateral organisations are already doing valuable work. Perhaps the solution is to put all these threads together: as recent events have underscored, no one government or institution can go the distance alone. Only by combining all of society's resources – political, social, financial, technological, logistical – from across sectors in truly daring and innovative partnerships, can we look forward to a brighter, safer, healthier, more prosperous future for all the world's citizens.

An oil rig in Cape Town harbour. Higher oil prices and volumes are improving development prospects for some African countries, but could jeopardise the outlook for the continent's oil importers

The outlook for Africa

Andrea Goldstein, Céline Kauffmann, Nicolas Pinaud and Lucia Wegner
Development Centre, Organisation for Economic Co-operation and Development

As G8 leaders review progress since the 2005 report of the Commission for Africa and the G8 summit at Gleneagles, the OECD finds reasons for cautious optimism about Africa – even if the continent's problems remain daunting

"This year's African Economic Outlook … finds some grounds for optimism as many countries saw their economic performance improve in 2005 as a result of favourable commodity prices, increased aid flows, debt forgiveness and on-going reforms which have started to bear fruit. Macroeconomic stability was by and large maintained despite the increase in fuel and food prices. Mobilisation for reforms has played a part in this rise in optimism; so has the growing support of the international community, which has been given added impetus by the Commission for Africa and the Gleneagles G8 Summit. While prospects for much of Africa are more favourable than they have been in the recent past, human security continues to be severely affected by weak governance structures, conflicts and the vulnerability that accompanies extreme poverty. This is deterring investment and impeding the effective entry of African countries into the global economy."

Donald Kaberuka, President, African Development Bank

Louka T Katseli, Director, OECD Development Centre

Africa's economic progress seems indeed now on a firmer footing after a third straight year of satisfactory performance in 2005, with overall growth of 5 per cent, average per capita income up 3 per cent and inflation steady at under 10 per cent. The *African Economic Outlook 2005/2006* also notes that if the good weather conditions of 2005 hold up this year, along with world commodity prices, the improvement could continue through 2006 and 2007. However, should the oil prices stay high, they would constitute a threat to the continent's oil-importing countries' macroeconomic stability; and for most African countries, the prospects of attaining the Millennium Development Goals (MDGs) remain daunting.

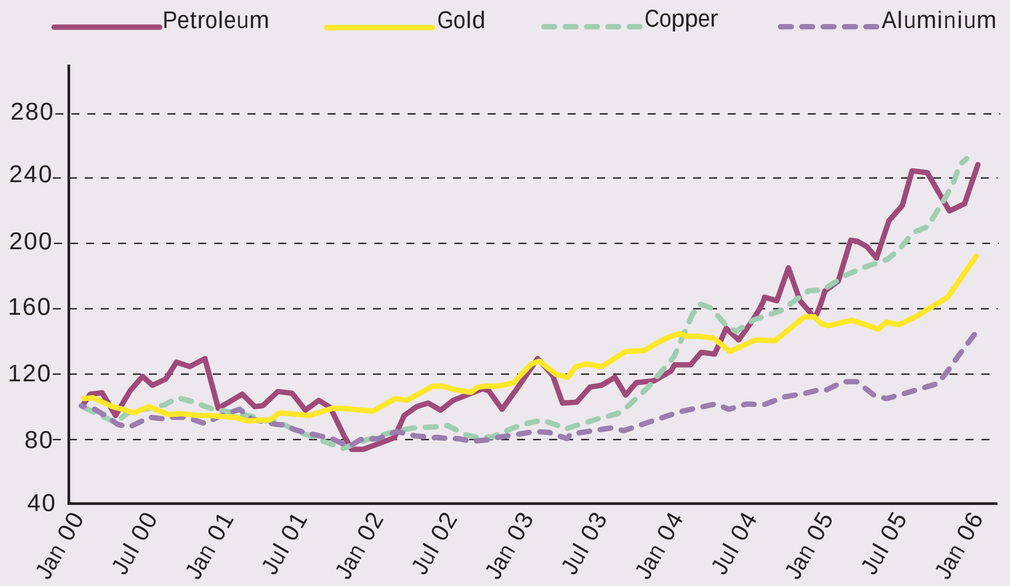
A two-speed continent?

The continent's oil producers seem at first sight to have had the best year, largely due to the increase in oil production and prices. Some of them – new producers (such as Chad, Equatorial Guinea and Mauritania) and existing ones opening up new oilfields (such as Angola, which has more than doubled its production since 1990 to 1.2 million barrels a day in 2005) – raised their output and thus took advantage of the soaring world demand. This was more than a passing phenomenon, to judge by these countries' budget and trade balances since 2000. The combination of high prices and higher volume oil exports is a substantial windfall, and could even be the chance of a lifetime to set these countries firmly on the road to development.

Chart 1: Real GDP growth performance of Africa, and of African oil exporting countries

Source: African Economic Outlook 2005/2006

Chart 2: Selected commodity prices

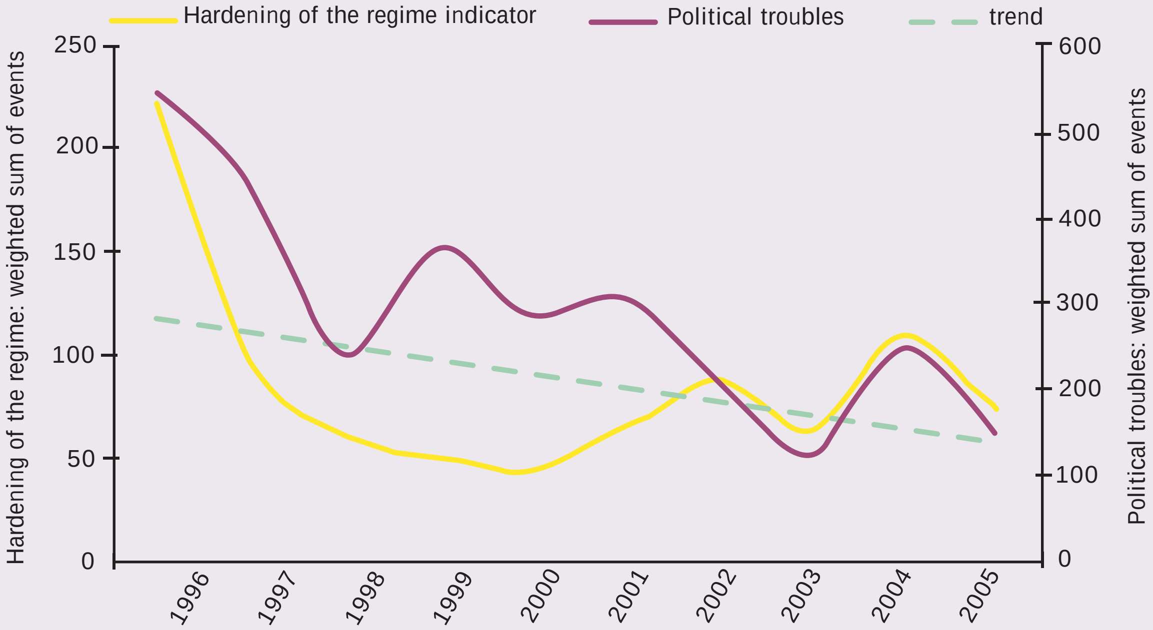


Source: African Economic Outlook 2005/2006

Growth in 2005 did not leave the oil-importing countries behind, however. Metal producers also profited from higher world prices and, to a lesser extent, higher export volumes. Mozambique, South Africa and Zambia all made up for the dearer oil with their aluminum, iron, copper and platinum exports. Agricultural exporters did less well, with their export prices falling in recent years. But 2005 was far from all bad for them. Rubber, coffee and seafood exporters enjoyed good prices that helped trade balances. Some producers in East Africa (Uganda, Ethiopia and Tanzania) and in West Africa (Burkina Faso, Mali and Senegal) also managed to boost exports substantially, thanks to good weather conditions.

The resilience of oil-importing countries to the impact of high world oil prices was illustrated by their control of inflation and overall improvement in public finances. Southern African countries paid for the more expensive oil by drawing on exchange reserves built up in recent years. This ability to adapt was in some cases also the result of positive structural changes, with Ethiopia, Kenya, Morocco, Uganda and Tanzania diversifying their exports healthily in recent years.

Chart 3: Political troubles and hardening of the regime



Source: African Economic Outlook 2005/2006

Moving towards political stability?

A detailed monitoring of the daily events and decisions that make up the reality of political life and government attitudes in 30 African countries also shows real progress towards more stable and open political systems in Africa.

According to the *African Economic Outlook's* indicators, political repression has lessened over the last decade, as more governments have adhered to the rule of law and respect for human rights. The upholding of civil rights and liberties has improved in countries very fragile at the beginning of the decade, including Algeria, Nigeria and South Africa. In parallel, political instability has been declining, though important exceptions remain in Chad, DR Congo and Côte d'Ivoire, where the authorities have countered rising political instability by hardening their political stance.

A number of presidential and / or legislative elections took place in 2005 and 2006, as did important referendums. Tanzania and Benin joined Mozambique in the still limited, but growing, number of countries enjoying a peaceful passage of presidential powers. Egypt held its first-ever multi-party elections, in which the opposition made substantial gains. In Uganda, 92.5 per cent of voters approved the re-establishment of the multiparty system.

However, political troubles tend to increase around election time. In 2005, public demonstrations, riots and clashes with the security forces

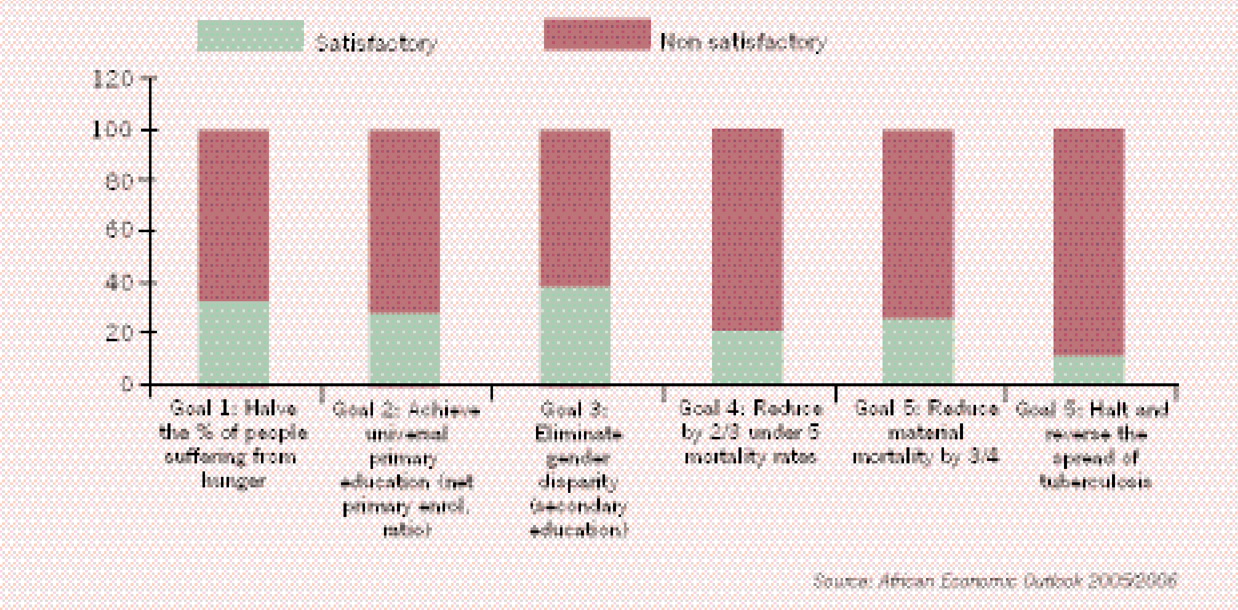
China and India: what's in it for Africa?

Africa – still largely connected to the world economy through raw material exports – is benefiting from a decade-long rise in real commodity prices, largely driven by the urbanisation and industrialisation in China and India. These two countries have recently contributed to lower global interest rates, to higher raw material prices, and to improvement in Africa's terms of trade. China's and India's growing demand for commodities has also brought about a significant redirection of African exports away from OECD markets, helping to diversify the destinations of Africa's exports. This process has encouraged new inflows of foreign direct investment, mostly in the extraction of raw materials, both from Asian investors and elsewhere. At the same time, direct competition between African and Asian businesses in local and third markets has remained limited to some specific sectors and countries (such as clothing, mostly in Northern and Southern Africa). Urban African consumers, meanwhile, have benefited from the higher purchasing power of their incomes thanks to lower prices for labour-intensive manufacturing goods.

It remains to be seen whether Africa will be able to make the most of the unexpected bonanza produced by record proceeds of raw material wealth, and diversify away from natural resources extraction. China's and India's competitiveness in labour-intensive industries (eg, textiles and clothing) may actually reduce the opportunities for African economies to diversify away from traditional exports. Lastly, trade redirection towards China and India might not result in much product diversification. The new trade flows have indeed been concentrated in commodities, broadly similar to historical patterns of African exports to OECD countries.

Source: Goldstein, A., Pinaud N., Reisen, H. and Chen.X. (2006), China and India: What's in it for Africa? *OECD Development Centre Studies, Paris.*

Chart 4: Progress towards achieving Millennium Development Goals



Today, Africa is lagging behind other continents in its progress towards the Millennium Development Goals

were recorded in Egypt, Ethiopia and Gabon. Political tensions have also increased in Chad, as well as in Kenya following the rejection of a government-backed new constitution, which prompted the President to suspend Parliament. In a way, the surge of tensions can be seen as a sign of growing maturity, where people dare to express themselves and become more vocal. One must however be careful interpreting this evidence: tensions may decrease as a result of continuous hardening of repression – as in the case of Zimbabwe.

Of course, war remains by far the greatest threat to economic development and human rights in Africa. Continuous fighting in the east of the Democratic Republic of Congo is endangering the country's transition to peace. Tensions between Ethiopia and Eritrea resurfaced in 2005 and conflicts in Northern Uganda and Northern Kenya continue. Chad has been severely affected by the ongoing Darfur crisis in Western Sudan and the large number of refugees crossing the border.

Tremendous challenges remain in the longer run

Despite the good economic performance of African countries in 2005, higher oil prices have been very painful for net oil importers. The *African Economic Outlook* puts their average trade deficit at more than 5.6 per cent of GDP. The likely continuing high oil prices constitute a major medium-term risk for the continent's oil importers, seriously questioning the sustainability of their trade deficits. It also makes poverty reduction even harder by reducing the government's financial room for manoeuvre and threatening a spread of poverty.

Today, Africa is lagging behind other continents in its progress towards the Millennium Development Goals. In some countries, conflicts and civil wars have reversed earlier gains. In others, inappropriate economic policies and governance problems have held back growth and hence incomes; it has also made it difficult for governments to provide, let alone expand, the provision of essential social services. The HIV/AIDS pandemic has had an enormous adverse impact in terms of dampening growth and in depriving societies of some of their most productive members. And in almost all the low-income countries, the limited resources available to finance the investments required in key sectors such as agriculture, health, education and infrastructure continue to be a major constraint.

Tackling Africa's transport deficit

The weakness of today's African transport infrastructure is striking compared to other developing regions. Sub-Saharan Africa accounts for only 3 per cent of the rail transport of developing countries, but has 17 per cent of the population and 7 per cent of the GDP. Under a fifth of its road network is paved, compared with over a quarter in Latin America and over two fifths in South Asia. Even paved roads are severely affected by systematic axle overloading of trucks and poor drainage, with dramatic consequences for safety. Only 4.5 per cent of global air traffic is in Africa, yet its share of accidents reached 25 per cent in 2004. Even the seaport facilities are reaching or have reached capacity limits, and are under-equipped.

Road repairs in Palmeira, Mozambique

Geography, demography and lack of resources are all major impediments to transport development in Africa. Fifteen of the continent's 53 countries are landlocked and population densities in the interior are very low, making infrastructure investments and maintenance very expensive. As a result, landlocked countries have to face transport costs reaching over 20 per cent of their export value.

The financial challenges are tremendous: the World Bank estimates that African countries will need to spend the equivalent of 4 per cent of GDP every year for the coming decade, just on roads, to reach the MDGs. Yet, throughout the 1990s, infrastructure was largely overlooked in the allocation of official development assistance in favour of the social sectors. It is only recently, with the creation of the NEPAD, the September 2005 UN Millennium plus Five Summit and the report of the Commission for Africa, that infrastructure again became a top priority on the international development agenda. Meanwhile, increasing involvement in the sector of non-Development Assistance Committee (DAC) donors, notably China and Arab countries, has been observed.

Short of money and burdened with inefficient state-owned monopolies, African countries are seeking private-sector participation. Various forms of public-private partnerships have been tried in airports, seaports and railways, more rarely for roads. Investors' perception of high risk renders full privatisation impractical, so most private participation in transport infrastructure has taken the form of leases or concessions. The results have been mixed says the *African Economic Outlook 2005/2006*.

The private sector is increasingly important in transport service provision. Cargo handling costs have for instance fallen significantly where competition among service providers has been introduced (charges are between US$60-75 per 20ft container in Dakar, Abidjan and Douala compared to US$200 in Lagos). This 'operating' part is potentially the most profitable and as such it can be 'unbundled' and easily divested. However, fixed infrastructure traditionally requires large-scale investment that private investors often fail to deliver. The upgrading and extension of networks have therefore continued to be largely funded by multilateral and bilateral loans on concessional terms.

The states are also key to enforcing the institutional environment and regulation required to derive the maximum benefits from private sector participation. This should avoid excessive prices and inadequate service, while ensuring optimal access, maintenance, and investment. The key factors of success include strong government commitment to ensure the credibility of the reform process; proper sequencing; and the creation of an independent and well-enforced regulatory body prior to divestiture.

Finally, careful co-ordination with regional and continental authorities (such as the NEPAD) rationalises state action on cross-border projects, while offering the country benefits from larger markets.

The African Economic Outlook, partly financed by the European Commission, is published annually by the African Development Bank and the OECD Development Centre. The writers of this article are principal authors of the AEO.

The responsibility to protect: unfinished business

Gareth Evans, President and CEO, International Crisis Group

The international community is at last agreed that coercive humanitarian intervention can be justified on the grounds of our common humanity. What is now needed is the political will, the material capabilities, and guidelines for the use of military force

The security issues that preoccupy the major powers these days – and will certainly be most in the minds of those attending the St Petersburg G8 Summit – involve a heady mix of international terrorism, nuclear proliferation, Islamist extremism, resurgent nationalism and, linking most of them, global energy security. Which doesn't leave much room for addressing the great security problem that most worried us throughout the 1990s: what to do about genocide or other mass killing, or ethnic cleansing or other crimes against humanity, committed within the boundaries of a single state.

But this problem is now staring us in the face all over again in Darfur, and we know all too well that it's only a matter of time before it comes at us once more from somewhere else in the world. What *should* be the response of the international community when faced with situations of catastrophic human rights violations within states, where

the state in question claims immunity from intervention based on longstanding principles of national sovereignty? When, if ever, *is* it right for states to take coercive action, in a particular military action, against another state for the purpose of protecting people at risk within it? Whether or not they are on this G8 agenda, these questions simply have to be addressed, and a workable international consensus reached as to how to answer them.

The conceptual breakthrough

The good news is that the international community, after years of wrangling, has more or less agreed on basic principles. We have seen over the last five years the emergence of a new international norm – the 'responsibility to protect' – of really quite fundamental ethical importance and novelty in the international system, and which may ultimately become a new rule of customary international law.

Language embodying this norm was adopted by the world's heads of state and government meeting at the UN's 60th Anniversary Summit in 2005 and, perhaps even more importantly, has since been reaffirmed, in a resolution passed on 28 April 2006, by the Security Council itself:

Each individual state has the responsibility to protect its populations from genocide, war crimes, ethnic cleansing and crimes against humanity…The international community, through the United Nations, also has the responsibility …In this context, we are prepared to take collective action, in a timely and decisive manner, through the Security Council, in accordance with the Charter, including Chapter VII, on a case-by-case basis and in co-operation with relevant regional organisations as appropriate, should peaceful means be inadequate and national authorities are manifestly failing to protect their populations from genocide, war crimes, ethnic cleansing and crimes against humanity.

This formal embrace by the international community of the new concept of 'the responsibility to protect' – moving away in the process from the incredibly divisive contest between those for and against a 'right of humanitarian intervention' – has been a major breakthrough, and a fascinating piece of intellectual history in its own right.

What most inhibited action throughout the postwar years was the perceived constraint imposed by the UN Charter. The 1945 founders – while paying lip service to the need to protect individual human rights – were overwhelmingly preoccupied with the problem of states waging war against each other and protecting state borders. They gave the new Security Council unprecedentedly sweeping powers to deal with threats to international peace and security. But they did not explicitly acknowledge the permissibility of external force being

The quintessential problems of the 1990s became civil war and massive internal violence

applied in response to an internal catastrophe, and Article 2(7) pointed, if anything, in precisely the opposite direction: nothing, it said, shall authorise intervention "in matters which are essentially within the domestic jurisdiction of any state".

The beginning of the Cold War almost immediately after the UN's founding reinforced the inclination to read the Charter narrowly. So did decolonisation: scores of new member states, newly proud of their identity and often conscious of their fragility, saw the non-intervention norm as one of their few defences against threats and pressures from more powerful international actors. One significant agreed exception to the non-intervention principle was the Genocide Convention of 1948. But it was almost as if, with its signing, the task was seen as complete: practically nothing was done to give it effect.

With the end of the Cold War came the defence of Kuwait against Iraq's invasion, and a degree of euphoria about a genuinely rules-based international order began to emerge. But that didn't last long. The quintessential problems of the 1990s became civil war and massive internal violence. With the break-up of various Cold War state structures, most obviously in Yugoslavia, and the removal of some superpower constraints, conscience-shocking situations repeatedly arose. But old habits of non-intervention died very hard. Even when situations cried out for some kind of response, and the international community did react through the UN, it was too often erratically, incompletely or counter-productively.

So we had the debacle of the intervention in Somalia in 1993, the pathetically inadequate response to the genocide in Rwanda in 1994, the lamentable failure to prevent murderous ethnic cleansing occurring in the Balkans, in particular in Srebrenica, in 1995 – and also the situation in Kosovo in 1999, when the international community did in fact intervene as it should have, but without the authority of the Security Council in the face of Russia's threatened veto.

All this generated very fierce debate, utterly unresolved throughout the 1990s. Secretary-General Kofi Annan put the challenge graphically to the General Assembly in 2000: "If humanitarian intervention is indeed an unacceptable assault on sovereignty, how *should* we respond to a Rwanda, to a Srebrenica, to gross and systematic violations of human rights?" He, and the international community, were given an answer when the Canadian government-sponsored International Commission on Intervention and State Sovereignty (ICISS) presented its report, *The Responsibility to Protect*, to the UN Secretary-General at the end of 2001. The Commission made several contributions to the international policy debate, which have been resonating ever since.

The most important was to turn the whole weary debate about the 'right to intervene' on its head, and to re-characterise it not as an argument about any 'right' at all, but rather about a 'responsibility' – one to protect people at grave risk: the relevant perspective was not that of powerful interveners but of those needing support. Sovereignty, in the modern age, involved not just 'control' but 'responsibility'. The state itself has the primary responsibility to protect the individuals within it; but where it fails in that responsibility, through either incapacity or ill-will, that responsibility to protect shifts to the wider international community.

The 'responsibility to protect', as articulated by the Commission, was not just about military intervention. It extended to a whole continuum of obligations: the responsibility to *prevent* (to address both the root causes and direct causes of internal conflict and other man-made crises); the responsibility to *react* (to respond to situations of compelling human need with appropriate measures, which may include coercive measures like sanctions and international prosecution, and, in extreme cases, military intervention); and the responsibility to *rebuild* (to provide, particularly after a military intervention, full assistance with recovery, reconstruction and reconciliation).

The Canadian Commission's report found an immediate constituency among international commentators and lawyers and NGOs, and more importantly, in sub-Saharan Africa, where the concern had long been more about mobilising support for the afflicted than protecting absolute sovereignty. But the real momentum for its formal embrace came when the Secretary-General's High Level Panel on Threats, Challenges and Change included the concept in its December 2004 report, and the Secretary-General himself then made it a central plank in his own recommendations to the General Assembly, meeting as the World Summit in September 2005. Although not without some bumps along the way, it was there adopted unanimously.

Even when the international community did react through the UN, it was too often erratically, incompletely or counter-productively

Where the state fails in its responsibility to protect the individuals within it, that responsibility shifts to the wider international community

On any view, the evolution in just five years of the 'responsibility to protect' concept from a gleam in an obscure commission's eye to what now might be described as a broadly accepted international norm – now familiar enough to have its own acronym, 'R2P' – is an extremely encouraging story. But it's not the whole story.

Unfinished business

The not so good news is that we still cannot be at all confident that the world will respond quickly, effectively and appropriately to new human rights catastrophes as they arise. There are at least three pieces of unfinished business to attend to.

First, there is a need to persuade the Security Council to *embrace specific guidelines for the legitimate use of military force*, at least in the context of R2P, if not more generally. The Canadian Commission argued strongly that this was an integral part of the package: if we cannot get general agreement about which are the kinds of cases that clearly demand coercive military action, and which are those where the responsibility to protect should be exercised with less shattering effect, there is a risk that the R2P principle will be misused, and that such consensus around it as there is at the moment will evaporate. (In the minds of many, R2P was misused in Iraq by those arguing, in the absence of other plausible rationales, that Saddam's tyranny against his own people – particularly his large-scale violence against the Kurds and Shiites many years earlier – fully justified his military overthrow.)

What is needed – and the High Level Panel and Secretary-General have agreed – is the adoption of five basic 'criteria of legitimacy' to test the validity of any case made for a coercive humanitarian intervention. These criteria are, in short, the *seriousness* of the harm being threatened (which would need to involve large-scale loss of life or ethnic cleansing, happening here and now and not in the distant past, *We have to get to the point where the reflex response is to find reasons to act, not reasons to pretend it is none of our business*

to *prima facie* justify military action); the *primary purpose* of the proposed military action (to halt or avert harm); whether there were reasonably available *peaceful alternatives*; the *proportionality* of the response; and the *balance of consequences* – whether, overall, more good than harm would be done.

There will always be argument about how these criteria should be applied in particular situations. Darfur is a tricky case in point: there is no doubt about the scale of the catastrophe and the international community's responsibility to help resolve it, but coercive military force applied without Khartoum's agreement – in effect, an invasion – would almost certainly be counterproductive. It is reasonable to assume, however, that if agreed criteria had to be systematically addressed every time force was proposed, there would be a much better chance of consensus being reached in these cases, and less risk of the Security Council being bypassed.

Second, we have to *solve the problem of capacity*, ensuring that if we are to exercise the responsibility to protect – and in particular the responsibility to react to clear and present dangers – the required civilian and military resources are always available in the right amounts. In the case of military capacity, those countries with apparently massive resources are often preoccupied with battles and deployments elsewhere, or have the wrong kind of troop configurations and equipment to do the fast and flexible jobs most often required. Throughout Europe in particular, in country after country, the number of troops operationally deployable at any given time is a tiny percentage of the men and women in uniform. Elsewhere in the world, there may be no apparent shortage of boots able to go on the ground – but there will be issues of training, command, control and communications capability, transportability and general logistic support. Unless these problems are tackled, R2P will often be more theoretical than real.

Last but not least, there is the ever-recurring problem of generating the *political will to act*. For most countries this is hardest to find when military force is involved, even if the required capacity is there, but it is also needed to mobilise non-military coercive action like sanctions or bring atrocity crime suspects before international criminal courts. It is also a requirement even for utterly non-coercive preventive action, like targeted development assistance, which may nonetheless involve expensive resources and the commitment to apply them effectively. Finding the will to do anything hard, expensive or politically sensitive is just a given in public affairs, domestically or internationally. Its absence should be the occasion not for lamentation, but mobilisation.

Part of the task here must be to generate much more widespread understanding and support for the 'responsibility to protect' concept itself. It is becoming better known by policymakers and those in the media and elsewhere who influence them. But R2P is not yet a household term anywhere in the world – and it needs to become one everywhere. We have to get to the point where, when the next conscience-shocking mass human rights violation comes along, the reflex response, both of governments and publics around the world, is to find reasons to act, not reasons to pretend it is none of our business. And that means some sustained campaigning by all those of us who take seriously – as we must, despite all the backsliding case after case – the battle cry 'never again!' Our common humanity demands that the responsibility to protect be a permanent item on the global security agenda – as a matter not just of principle but of operational practice.

Gareth Evans was Co-Chair of the International Commission on Intervention and State Sovereignty, and a member of the High Level Panel on Threats, Challenges and Change.

Development finance after Monterrey: a new agenda emerges

George Mavrotas, Project Director,
World Institute for Development Economics Research
of the United Nations University (UNU-WIDER)

Progress towards the Millennium Development Goals depends on the international community delivering on its high-level commitments. Increased aid volumes and new sources of development finance hold the key

Lack of finance limits the ability of many countries to invest in diversifying their trade, access new technologies and achieve poverty reduction

Most developing countries have very limited access to the finance necessary for development. Foreign direct investment (FDI) is highly concentrated on a narrow range of countries; private portfolio flows into equities and bonds are limited to a small group of emerging markets; and official aid flows have been stagnant and declining in recent years. This lack of finance limits the ability of many countries to invest in diversifying their trade, access new technologies and achieve poverty reduction.

Development finance-related issues have shot up the international agenda since the Monterrey Financing for Development Conference in 2002 and the setting of the Millennium Development Goals (MDGs) by 2015. The Report of the Commission for Africa (2005) and the UN Millennium Project Report (2005) have maintained the momentum. There have been a series of proposals recently to expand private and official flows to developing countries, particularly the poorer ones. These include the use of Global Funds, the US Millennium Challenge Account, the British proposal for an International Finance Facility, and proposals for global taxation, the expansion of Special Drawing Rights (SDRs), and ways to encourage the flow of private finance (both FDI and portfolio flows). Finally, the *Declaration on Aid Harmonization* by aid donors in Rome in February 2003 and the *Paris Declaration on Aid Effectiveness* in February 2005 emphasised that donors should move fast towards aid co-ordination to accelerate progress in aid effectiveness and MDG attainment.

Improving aid effectiveness

Doubling aid flows to achieve the MDGs (particularly in Africa) is not enough. It is now clear that:

- Improving our overall understanding of aid effectiveness is vital, especially our understanding of how aid is transmitted through the fiscal system to services and infrastructure of value to poor people.
- Whilst aid overall has a positive impact on growth, there is no widespread agreement on how aid can be effective in promoting growth in poor policy environments, and on what constitutes an effective, pro-poor growth policy, beyond the achievement of basic macroeconomic stability and the avoidance of gross price distortions.
- As raising the additional aid flows necessary for the MDGs will present a real challenge, accelerating finance – not least through improvements to aid effectiveness – will be a top priority.
- Using aid (ie, public money) to leverage additional private flows to developing countries is equally important.

Meanwhile, debate continues on whether increased volumes of development aid will inevitably run into absorptive capacity constraints and deliver diminishing returns, particularly in sub-Saharan Africa.

Reducing aid volatility

One factor determining the effectiveness of aid expenditure is its *predictability*. In a very recent study (Fielding & Mavrotas, 2006), aid volatility is examined using data on 66 aid recipients over the period 1973-2002. The study improves upon earlier work in the area by disaggregating, *inter alia,* total aid inflows into sector and programme aid. It was found that the institutional quality of the aid recipient affects the stability of sector aid but not that of programme assistance. It was also found that macroeconomic stability affects the stability of both kinds of aid, as does the extent to which a country relies on a small number of individual donors. The findings point to the importance of disaggregating aid when modelling the volatility of aid inflows. This is particularly vital for aid recipient governments who are attempting to manage aid volatility by some combination of adjustment to tax and spending plans, adjustment of foreign exchange reserves, or domestic non-monetary financing. For these countries, improved forecasting of both short-term and medium-term aid is also vital, although in the latter case informal indications from donors are also likely to be important.

Aid heterogeneity matters

Also important is how different types of aid operate in the diverse macroeconomies of aid recipients. Recent empirical evidence seems to suggest that understanding *how different types of aid work* (such as project aid, programme aid, technical assistance, food aid and emergency assistance, which is becoming extremely important in recent years), and in particular, *which types of aid have the greatest impact*, is of paramount importance for assessing aid effectiveness and for designing and implementing policies capable of improving aid effectiveness (Mavrotas, 2002, 2005; Clemens *et al.*, 2004; Mavrotas and Ouattara, 2006a,b).

FDI and other private capital flows

FDI is central to the prospects for developing countries in the world economy. Given the limited availability of official financial flows, many developing countries have decided that they need to tap more effectively into private capital flows, of which FDI is a key element. And while more aid is important, aid cannot deliver the kinds of benefits, particularly in knowledge transfer, that FDI promises. For the international community, the MDGs are now the over-arching framework for assisting the developing world. A supporting UN initiative is the 'Global Compact', which seeks to promote a more central and responsible role for the international business community in the development process, with FDI playing a central part in helping to achieve the MDGs by their target date of 2015. With only a decade to go, employment growth will have to be very rapid indeed to achieve the ambitious target of halving global income poverty. This requires a considerable acceleration in investment, by both domestic and foreign companies (see Addison, Guha-Khasnobis and Mavrotas, 2006, for a detailed discussion).

New sources of finance

The MDGs can be achieved by either doubling (or tripling, according to Jeffrey Sachs' report for the UN, 2005) the existing amount of ODA and other private capital flows, and/or mobilising domestic development finance. If the funds necessary to meet the MDGs from existing sources cannot be raised, alternative forms of finance need to be found. Recent years have seen a number of innovative proposals on this front. A recent UNU-WIDER study collaboration with UN-DESA on 'Innovative Sources for Development Finance' (Atkinson, 2004) explored the merits of the following proposals:[1]

• *Global Environmental Taxation*: a tax on goods generating environmental externalities, with specific reference to a tax on the use of hydrocarbon fuels according to their carbon content. It has substantial revenue-raising potential as tax on high-income countries alone could raise revenue of $50 billion.

• *Currency Transactions Tax (better known as the 'Tobin Tax')*: a tax on foreign currency transactions, covering a range of transactions (spot, forward, future, swaps and other derivatives). The tax could generate a minimum of US$15-28 billion for global public use.

• *Development-focused SDRs:* the creation of SDRs for development purposes, with donor countries making their SDR allocation available to fund development. Regarding revenue raising potential, an allocation of US$25-US$30 billion could make a significant contribution but depends on frequency.

• *Global Lottery and Global Premium Bond:* the proposal, which has its origins in a proposal by the Crisis Management Initiative (a Finnish NGO led by former Finnish President Martti Ahtisaari), is for a global lottery operated through national state-operated and state-licensed lotteries, with proceeds shared between national participants and an independent foundation established in conjunction with the UN. Its revenue potential is hard to estimate but could reach US$6 billion a year. A Global Premium Bond – parallel to national bonds with lottery prizes in place of interest – would provide loan finance but volume is hard to estimate.

• The *International Finance Facility (IFF)*: a British proposal aiming to accelerate progress towards the MDGs by 'frontloading' aid. Long-term, but conditional, funding would be guaranteed to the poorest countries by the donor countries; such pledges of a flow of annual payments to the IFF would then leverage additional money from the international capital markets. This could produce a flow of US$50 billion for 2010-2015, building up from 2006 and falling to zero by 2020.

• *Remittances from migrants*: reducing the cost of remittances (logistics), encouraging repatriation (financial institutions) and regularising the status of migrants (legal) could increase substantially the remittances for development funding. Remittances are a large, growing, and relatively stable flow of funds and can usefully contribute to micro-household projects. A reduction in transfer costs could significantly increase remittances.

• *The case of private donations for international development*: charitable donations by private individuals and firms could be increased by tax incentives, global funds, corporate giving and the internet. Total charitable giving is sizeable and there is potential for development to attract larger shares.

A factor to be weighed with some of these proposals is their potential to 'crowd-out' existing sources of finance (the 'additionality' issue). Finally, it is important to stress the distinction between proposals where common action is required but where the agreement for a significant subset of countries will suffice (´flexible geometry´) and those proposals where the involvement of all donor countries is absolutely necessary (see Atkinson, 2004 for a detailed discussion).

A substantial number of developing countries have undertaken a series of financial reforms recently to improve economic performance

Last but not least… mobilising domestic resources

Domestic resource mobilisation can help significantly towards the achievement of the MDGs. It has the additional advantage of engaging local communities directly in the overall development financing process. Local financial sector development can enhance savings mobilisation and domestic investment for pro-poor growth. The issue is becoming of crucial importance in view of the overall low savings rates of many developing economies in recent years. A substantial number of developing countries have undertaken a series of financial reforms recently to improve economic performance.

The road ahead

Much of the debate about development finance, including development aid, is converging around:

- Changing donors' *modus operandi* so that the emerging conclusions about aid effectiveness are reflected in development assistance practice. This might involve nothing less than the re-shaping of the current aid architecture, its organisations and instruments.
- Improving aid co-ordination by moving fast towards the implementation of the recent *Rome Declaration on Aid Harmonization* and the *Paris Declaration on Aid Effectiveness*.
- Introducing new schemes and synergies in the area of development co-operation, eg, with donors as a whole or in groups acting together on aid projects, or devising new schemes which combine several priorities and then provide aid to a group of countries which implement a common project, is also vital. Linking these efforts to recent regional initiatives (eg, NEPAD) would also be desirable.
- Putting stronger emphasis on Africa, in view of the disappointing performance in relation to MDGs in the region, is a *sine qua non* of accelerating progress on that continent since most of the 'top priority countries' (countries where urgent action is needed to achieve the MDGs) are in Africa. Assuming that aid budgets remain tight, the proportion of people in sub-Saharan Africa living on less than US$1 a day will not be cut by half until the middle of the 22nd century. Notwithstanding the important pledges agreed by donors at recent G8 meetings, further action is imperative.
- Deepening our understanding of the delivery systems and impact of aid in conflict-affected countries is vital for broad-based post-conflict recovery.
- Exploring other possible sources of development finance in addition to development aid and other capital flows (FDI, portfolio flows) is vital for accelerating progress towards the MDGs.

Complementary strategies – not alternatives

Finally, notwithstanding the importance of developing alternative forms of development finance, it is essential to prioritise an increase in aid *volumes* since aid remains a key source of development finance for many developing countries, particularly in sub-Saharan Africa. The additionality issue is relevant since some of the ideas on the table could crowd out existing sources of finance such as ODA. In conclusion, donors need to honour the commitments made at Monterrey to make substantial increases in aid flows up to 2015. In parallel, aid recipients need to make a real effort to use these additional sources efficiently by accelerating reform of their systems of governance.

[1] *See in particular the report on "Les nouvelles contributions financières internationales" prepared by the commission chaired by Jean-Pierre Landau on behalf of President Chirac (2004).*

References

- Addison, T., Guha-Khasnobis, B. and Mavrotas, G. (2006), "FDI to Developing Countries: The Unfinished Agenda", *World Economy 29*: 1-8.
- Atkinson, A.B. (ed.) (2004), *New Sources of Development Finance,* Oxford: Oxford University Press.
- Fielding, D. and Mavrotas, G. (2006), "What Explains the Volatility of Development Aid?", mimeo, UNU-WIDER, Helsinki, Finland.
- Clemens M, Radelet, S. and Bhavnani, R. (2004), "Counting chickens when they hatch: the short-term effect of aid on growth", *WP No. 44*, Centre for Global Development: Washington DC.
- Mavrotas, G. (2002), "Foreign aid and fiscal response: does aid disaggregation matter?", *Weltwirtschaftliches Archiv 138(3)*: 534–559.
- Mavrotas, G. (2005), "Aid Heterogeneity: Looking at Aid Effectiveness from a Different Angle", *Journal of International Development 17*: 1019-1036.
- Mavrotas, G. Ouattara B. (2006a), "Public Fiscal Behaviour and Aid Heterogeneity in Aid-recipient Economies", *Journal of Developing Areas, 39(2)*: 1-15.
- Mavrotas G., Ouattara B. (2006b), "Aid disaggregation, endogenous aid and the public sector in aid-recipient economies", *Review of Development Economics, 10(3)*: 432-449.

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Russia's short-term economic outlook

Economist Intelligence Unit

The prospect of continued high levels of investment and private consumption, buoyed by strong oil prices, needs to be weighed against the risk of a collapsing dollar and an avian flu epidemic

Policy trends

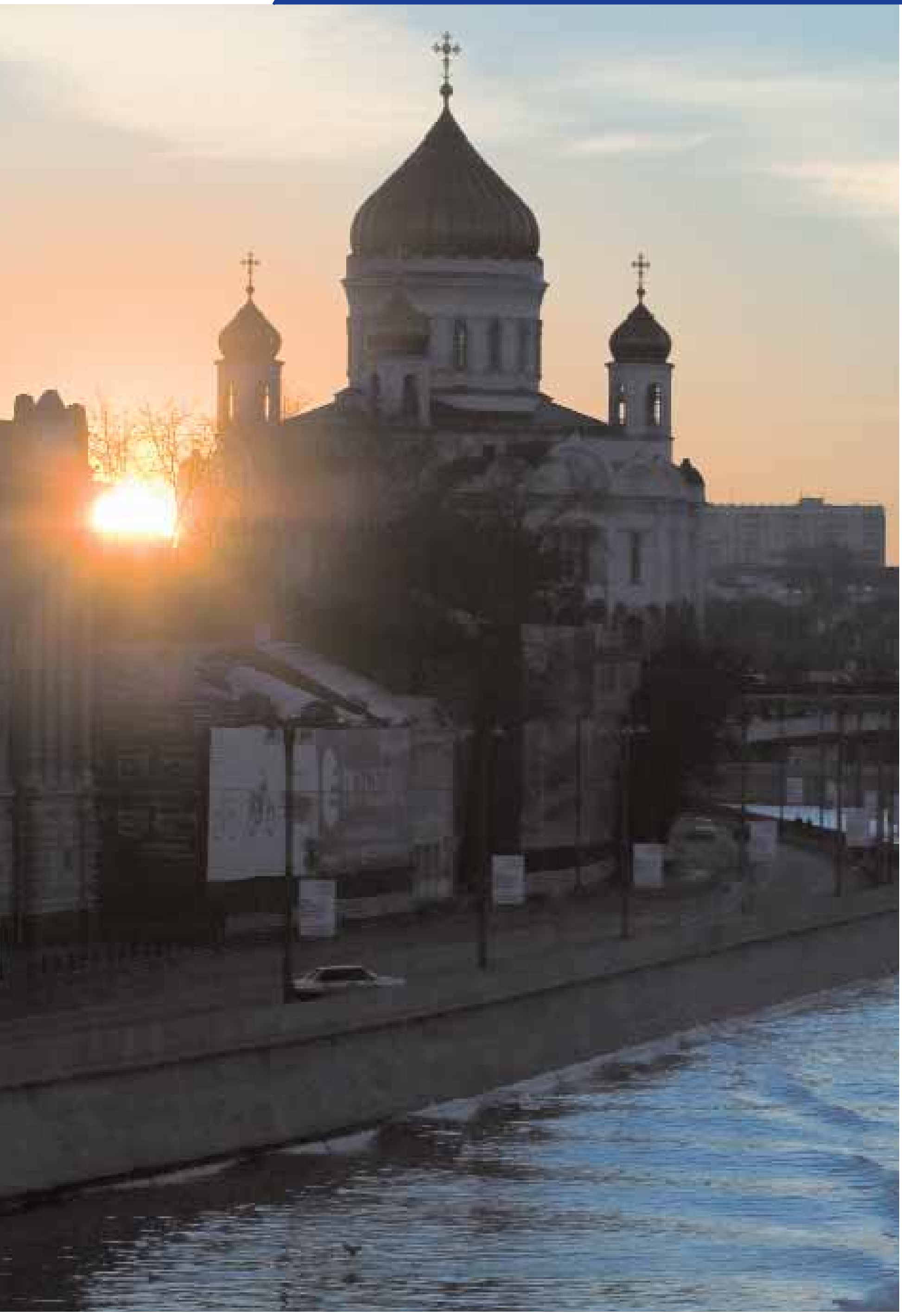
Although relatively prudent macroeconomic policies will be maintained, few advances in structural reform are likely in the run-up to the 2007-08 elections. President Vladimir Putin's address in May to the Federal Assembly emphasised Russia's demographic problem, which the government hopes can be alleviated in part through direct and indirect measures to raise the birth rate. This is another reason why economic policy will focus on implementing the 'national priority projects', designed to raise standards of living through increased public spending on health, education and housing. The government will also continue with its policy of establishing state control over the so-called strategic heights of the economy – which largely, although not exclusively, means Russia's energy and metals resources.

Joining the World Trade Organization (WTO) remains a leading policy objective for Russia, and at one stage it seemed possible that Russia could become a member in time for the July G8 summit. However, there has been little progress in recent negotiations, and the chill in relations with the US does not suggest that a successful conclusion to the negotiations is imminent. Russia has repeatedly accused the US of putting politically motivated obstacles in the way of Russia's WTO membership, but Russia's progress has also been slowed by its tough negotiating position and its resistance to demands for less protection for agriculture, the aircraft industry and financial markets. Protection of intellectual property rights and energy pricing are also areas of disagreement.

Russia's firm negotiating stance reflects the fact that the economic benefits and drawbacks of membership for Russia's economy appear to be more finely balanced than for most other countries. The raw materials that form the bulk of Russia's exports – oil, gas, minerals and timber – are not covered by the WTO regime. The same applies to arms exports. WTO-related increases in domestic energy prices would threaten the competitiveness of a range of energy-intensive enterprises. Reduced protection could set back hopes for Russia to diversify the economy – for example, it is questionable whether Russia's aircraft industry could survive the abolition of import duties on aircraft. Nevertheless, these considerations are likely to be trumped by Russia's strong political interest in joining the WTO, and we expect that compromises over outstanding issues will allow this to happen towards the end of 2006, or possibly in 2007.

Fiscal policy

Federal budget expenditure for 2006 has been revised upwards in the expectation of higher oil prices than previously assumed. Revenue is now targeted at Rb5.6 trillion (US$200 billion) and expenditure at Rb4.3 trillion, yielding a surplus of around Rb822 billion (US$29 billion) after revenue has been transferred to the Stabilisation Fund, compared with a previous target of Rb776 billion. The risk of further upward spending revisions has eased, however, as Mr Putin, worried about inflation, has stressed the need for fiscal prudence, not just in 2006, but also in 2007, ahead of the next electoral cycle. First-quarter 2006 budget data appeared to confirm a more austere trend, with expenditure coming in 75 per cent below target, producing a surplus of Rb570 billion (US$20 billion), or around 11 per cent of GDP, according to our estimates. Part of the shortfall in expenditure will have been the result of payments arrears, but the out-turn nonetheless suggests that another strong full-year performance is likely. We forecast that the budget surplus will reach 6 per cent of GDP in 2006 and 4.5 per cent of GDP in 2007.



Global outlook

International oil prices will continue to be the main driver of Russian economic performance during the forecast period. The outlook for Russia in this respect is highly favourable, given that the average price of dated Brent Blend in 2006 is expected to be US$60/barrel, before declining – albeit only to 2005 levels – in 2007. Although our baseline forecast is for robust growth in the world economy in 2006-07, there are a number of threats that could drag down global economic performance significantly. In particular, exchange-rate risk is high, as the large US external deficit weighs on the US dollar. Since Russian oil exports are priced in US dollars, a collapse in the US currency would have an effect similar to that of a sharp fall in oil prices, posing a threat to Russia's economic growth. The risks related to avian influenza (or bird flu) appear especially acute for Russia, given its already daunting health problems.

Growth

Real GDP increased by 6.4 per cent in 2005. Growth is nevertheless below what could be expected at current oil price levels and it is slowing, with the Ministry of Economy estimating first-quarter 2006 real GDP growth at 4.6 per cent. The weak January-March performance can in part be attributed to an exceptionally cold winter, but a rebound in March was not as strong as might have been expected. We forecast that annual real GDP growth will fall to 6 per cent in 2006 and to 5.5 per cent in 2007 as a result of disappointing performance in key industrial sectors – most notably in oil extraction, where output rose by only 2.5 per cent in 2005, compared with growth rates of 9-11 per cent in 2002-04.

Export volume growth was sluggish in 2005, and with oil sector output still constrained by high marginal taxes and infrastructure bottlenecks, there is little reason to expect an export rebound in 2006-07. However, investment held up well in 2005 and is likely to remain high over the forecast period. Private consumption will also continue to be an important engine of

Monetary policy

The twin and contradictory objectives of monetary policy – both to dampen inflation and maintain price competitiveness – continue to be difficult to achieve given strong foreign-exchange inflows, a dearth of sterilisation instruments and reluctance to allow the rouble to appreciate. Although the Russian Central Bank (RCB) has occasionally prioritised inflation-reduction, this has not been sustained; concern about the impact of steady real appreciation on the real economy has most often taken precedence.

The RCB has stated that it wants to limit money supply (M2) growth to 25 per cent in 2006. Technically this could be done by raising the mandatory reserve requirements and the interest rate on central bank deposits. However, attempting to reduce the rate of M2 growth significantly would reduce liquidity in the money market, possibly de-stabilise the financial markets and dampen economic growth. The RCB has traditionally underestimated the rate of money supply growth, and a concerted attempt to curb it seems unlikely, especially if inflation starts to slow.

Forecast summary (% unless otherwise indicated)	2004[a]	2005[a]	2006[b]	2007[b]
Real GDP growth	7.2	6.4	6.0	5.5
Industrial production growth	7.3	4.0	4.8	4.4
Gross fixed investment growth	11.3	10.5	10.0	10.4
Unemployment rate (av)	8.2	7.6	6.8	6.7
Consumer price inflation (av)	10.9	12.7	10.2	9.6
Consumer price inflation (year-end)	11.4	10.9	10.1	8.8
Central bank refinancing rate (year-end)	13.0	12.0	12.0	12.0
Federal budget balance (% of GDP)	4.9	7.5	6.0	4.4
Exports of goods fob (US$bn)	183.5	243.6	270.4	287.6
Imports of goods fob (US$bn)	96.3	125.3	144.4	172.3
Current-account balance (US$bn)	59.9	84.2	93.3	82.4
Current-account balance (% of GDP)	10.2	11.0	10.1	7.7
External debt (year-end; US$bn)	211.9[c]	216.7[c]	222.2	230.1
Exchange rate Rb:US$ (av)	28.81	28.28	28.20	28.10
Exchange rate Rb:US$ (year-end)	27.75	28.78	28.28	27.58
Exchange rate Rb:€ (av)	35.84	35.21	35.55	37.86
Exchange rate Rb:€ (year-end)	37.81	34.17	37.34	36.69

a – Actual. b – Economist Intelligence Unit forecasts. c – Economist Intelligence Unit estimates.

growth, even though real rouble appreciation is fuelling strong import demand. The increased state control over broad swathes of the economy will also act as a drag on growth, not least because of the low efficiency of state-owned monopolies.

Inflation

Monthly inflation subsided steadily in the first four months of 2006, falling to 0.4 per cent in April, compared with 2.4 per cent in January. As a result, annual inflation in April fell below 10 per cent for the first time since the devaluation of the rouble in August 1998. Consumer prices have nevertheless increased by 5.4 per cent since the start of the year, which makes it unlikely that the government will meet its inflation target for end-2006 (initially set at a range of 7-8.5 per cent, and informally raised to 9 per cent). Even with some administrative curbs, Russia's strong foreign inflows and the authorities' reluctance to allow further nominal rouble appreciation mean that inflation is unlikely to be below 10 per cent at the end of the year.

The authorities want to keep inflation in check by applying anti-monopoly measures in the food and fuel sectors, reducing or even scrapping import duties on selected goods, and regulating utility tariffs and Russian oil product prices. Such moves are unlikely to curb inflationary pressure in a sustained way. In addition to the unrelenting pressure emanating from strong foreign-exchange inflows, the main driver of inflation is budget spending, which is boosting nominal personal income and demand.

Exchange rates

The extent of real appreciation in recent years has by now eroded the competitiveness gains to Russian producers from the 1998 devaluation. The rouble appreciated in real effective terms by 10.8 per cent year-on-year in January-April. During the first quarter of 2006 the RCB allowed the rouble to appreciate in nominal terms to try to combat rising inflation, but by April the exchange rate was being kept stable and the central bank is likely to seek to prevent further significant nominal appreciation. Allowing nominal appreciation in early 2006 may even have been counterproductive for combating inflation, as it has encouraged inflows of capital and thus money supply growth. Real effective appreciation will continue given the differential between inflation in Russia and its leading trade partners.

External sector

Figures for the current-account surplus in 2005 have been revised downwards slightly, to US$84.2 billion from the initial official estimate of US$86.6 billion. Preliminary RCB estimates show that the current-account surplus surged to US$28 billion in the first quarter of 2006, a 38 per cent increase compared with the same period of 2005. The current-account surplus is forecast at about 10 per cent of GDP in 2006 and nearly 8 per cent in 2007. Large trade surpluses will more than offset large deficits on the income and services accounts. Rising interest payments, in particular, will reflect the rapid expansion in corporate foreign borrowing in recent years, which is set to continue.

RCB data show that foreign direct investment (FDI) into Russia reached US$14.6 billion in 2005 (a slight downward revision of initial estimates). FDI at similar levels is expected in 2006-07. Many investors will be attracted by strong market opportunities and remain – at least outside the energy sector – unaffected by Russia's increased statism and imposition of restrictions on foreign involvement.

This is an extract from the EIU Russia Country Report Update, May 2006.

The outlook for foreign direct investment into Russia

Economist Intelligence Unit

Several years of stability and robust growth, along with improvements in the business environment, have boosted the confidence of international investors in Russia. But further reforms are needed if FDI inflows are to reach their full potential

The lingering fallout from the Yukos affair and growing state pressure on the private sector have hit the confidence of many Russian domestic investors. Foreign investors, by contrast, appear to be undaunted. According to data from the Russian Central Bank (RCB), FDI inflows amounted to US$14.6 billion in 2005 and US$15.4 billion in 2004, compared to US$8 billion in 2003 and negligible annual totals before that. The 2005 inflow would have been over US$18 billion were it not for Gazprom's acquisition of a 73 per cent stake in Sibneft (this was treated as an FDI transaction and resulted in a large negative FDI figure in the fourth quarter of 2005). FDI data from Rosstat showed a rise of FDI in 2005 to US$13 billion.

The upward trend has continued into 2006. According to Rosstat data, inflows of FDI in the first quarter of 2006 nearly doubled, compared with the same period in 2005, to US$3.8 billion. Preliminary RCB figures for the first quarter for the non-financial sector show even higher FDI inflows, at US$5.2 billion (unlike the Rosstat data, the RCB figures also include reinvested earnings).

The latest FDI data reflect the continuation of an upward trend that began in 2003. FDI inflows had averaged a paltry US$3 billion per year in 1998-2002 before they began to pick up markedly. There have been a number of large-scale FDI deals in the oil and gas sector in recent years, and not all of these were included in official FDI data (the 2003 BP-TNK deal, worth more than US$8 billion, was conducted through offshore vehicles).

Other sectors that have proved attractive include banking, trade and retail and consumer goods. The automotive sector, in particular, has been attracting interest. In 2005 Toyota started a US$140 million investment, Ford announced new expansion plans and Renault opened a US$250 million plant in Moscow. Both Volkswagen and General Motors recently announced new investments in Russia, worth €370 million (US$470 million) and €100 million, respectively. Russia's booming consumer sector is also attracting increasing inflows, especially through mergers and acquisitions (M&As). Among the biggest M&A deals in Russia in 2005 were acquisitions (worth US$500 million each) by Coca-Cola Hellenic Bottling and Heineken.

Foreign investor confidence

It may seem strange that increased foreign investors' interest has coincided with some signs of deterioration in Russia's investment climate. These include the campaign against the Yukos oil company; a slowdown in structural reform; a trend towards increased state control of the economy; and tension in political relations with the West.

In the past, Russia's attractions of market size and natural resources had been more than offset by serious deficiencies of the business environment. Several factors appear to explain the narrowing of the gap between actual and potential performance. A track record of several years of stability and robust growth has been built up. There has also been a delayed reaction to the improvement in Russia's business environment in the early part of this decade. The award of an investor grade rating by all three international rating agencies has also provided a boost. Some long-standing deterrents to foreign investment have eased, such as macroeconomic and political instability and high and unpredictable taxes.

Many investors are attracted by strong market opportunities and remain – at least outside the energy sector – unaffected by Russia's increased statism and imposition of restrictions on foreign involvement. A 2005 survey by the Foreign Investment Advisory Council found that nine out of ten corporate investors in Russia had reported sales increases of 10 per cent or more over the previous year. Many foreign companies are now able to navigate Russia's operating environment. Surveys show that despite numerous complaints about the business environment, the majority of those doing business in Russia are satisfied with their success and plan to expand their investments in the country. The significant increase in reinvested earnings (see Table 1), and its very high share in total FDI inflows in 2003-05, is another strong sign of growing foreign investors' confidence.

Macroeconomic fundamentals will remain strong and market opportunities will be good, despite some slowdown in growth

Table 1: Foreign direct investment into Russia (US$ m)

	2000	2001	2002	2003	2004	2005
Total	2,714	2,748	3,461	7,958	15,445	14,600
Equity	1,580	1,606	2,492	-1,911	8,632	3,048
Reinvested earnings	95	430	658	7,065	5,330	8,733
Other capital	1,039	712	311	2,804	1,483	2,819
FDI/GDP, %	1.0	0.9	1.0	1.8	2.6	1.9
FDI/Fixed investment, %	6.2	4.7	5.6	10.0	14.3	10.5
Reinvested earnings						
as % of total FDI inflow	3.5	15.6	19.0	88.8	34.5	59.8
as % of GDP	0.0	0.1	0.2	1.6	0.9	1.1
as % of Fixed investment	0.2	0.7	1.1	8.9	4.9	6.3

Source: Russian Central Bank, EIU

Many foreign companies are now able to navigate Russia's operating environment

Table 2: Foreign direct investment stocks, end-2005

	FDI stock (US$ bn)	FDI stock (% of GDP)	FDI stock per head (US$)
Czech Republic	55.1	45.0	5,382
Hungary	48.9	44.8	4,882
Poland	75.7	25.3	1,984
Slovakia	13.8	29.1	2,539
Bulgaria	12.3	46.0	1,601
Croatia	12.5	32.3	2,735
Romania	24.5	25.3	1,115
Estonia	8.0	61.0	5,941
Latvia	4.5	29.4	1,967
Lithuania	5.6	21.7	1,624
Russia	65.2	8.5	455
Ukraine	16.2	19.6	347
Azerbaijan	16.8	133.4	1,986
Kazakhstan	20.8	37.1	1,367

Source: EIU; IMF; National statistics

Still below potential

Despite the pick-up in FDI inflows, FDI remains below potential, given the country's obvious attractions, which include one-third of the world's gas reserves, around 8 per cent of proven oil reserves, a skilled and low-cost workforce and a large consumer goods market. The recovery in FDI has been from a very low base and Russia's annual inflows are dwarfed by the amounts that go into China. Even after the post-2003 upsurge, cumulative FDI inflows into Russia in 1990-2005 amounted to some US$65 billion, equal to only 8.5 per cent of GDP. This was the second lowest ratio (marginally ahead of Belarus) among all transition economies, and one-quarter of the average penetration ratio in east central Europe. Russia's share in the transition region's population, GDP and exports is about one-third; its share in the region's stock of FDI is below 16 per cent.

Foreign car-makers with existing or planned plants in Russia include Renault, GM, Toyota, Kia, Volkswagen and Nissan

Restrictions on FDI

A more open policy on asset sales to foreigners would lift average annual inflows by almost 50 per cent

An underdeveloped infrastructure and corruption remain key impediments to FDI, as does the unpredictability with which regulations are often applied. Investors in the natural resources sectors, in particular, are facing considerable uncertainty as Russia defines which assets it considers "strategic" and thus off limits to foreign majority control. This clarification has been delayed and at the moment the policy seems confused and uncertain.

Concerns that the government's definition of "strategic" would extend beyond natural resources were stoked in April 2005, when the government blocked the acquisition of 73 per cent of turbine maker Power Machines by Siemens. The state's growing direct involvement in the economy in 2005 also affected the carmaker Avtovaz that was taken over by a state agency, which caused some problems for its joint venture partner, General Motors. However, the recent move by Arcelor, the Luxembourg-based steel group, to buy Severstal, and the Russian government's implicit backing for the deal, shows that the authorities' opposition to foreign ownership does not apparently extend to the steel sector.

There is little doubt, however, that the natural resource sector (in addition to defence, nuclear energy and aviation technology) will be subject to significant limitations on foreign participation. The government insists that foreigners cannot have more than 49 per cent of any venture engaged in developing a "strategic" deposit. Currently any field with reserves of more than 150 million tonnes of oil or 1 trillion cubic metres of gas is defined as strategic. The Natural Resources ministry is now considering a proposal to lower the thresholds to 50 million-100 million tonnes for oil and 500 billion cubic metres for gas. A recent suggestion that several PSAs should be renegotiated have further muddied the waters for foreign energy investors. Although the idea was firmly rejected by leading members of the government, the mere suggestion of the possibility of revising existing agreements is worrying for foreign investors.

The outlook

Despite the continuing problems of the business environment and the regulatory uncertainty affecting the natural resources sector, the medium-term outlook for FDI into Russia is good. Macroeconomic fundamentals will remain strong, especially as oil prices are expected to remain at high levels. Market opportunities will be good, despite some slowdown in growth. WTO accession should increase Russia's attractiveness, as will the impending liberalisation of the capital account. Russia's consumer and retail boom is likely to sustain a wave of joint ventures with foreign investors. More automotive investments are in the pipeline.

Survey evidence also suggests that Russia will be one of the world's leading destinations for FDI over the next few years. According to AT Kearney's most recent annual survey of investors, Russia was, in 2005, seen as the sixth most attractive FDI destination in the world (up from 11th place in 2004). A survey of MNCs undertaken by UNCTAD in 2005 placed Russia as the fourth most attractive location for FDI (behind only China, India and the US) for 2005-2008. A recent Economist Intelligence Unit survey of 400 senior MNC executives found that Russia was seen as the sixth most attractive global destination for cross-border M&As over the next three years.

The share of the energy sector in FDI into Russia may fall in the coming years, given the restrictions on foreign involvement in this sector, uncertainty about the sanctity of previous agreements and the heavier tax burden imposed on oil producers in recent years. However, the Western oil majors will hardly shun Russia altogether. Russia is one of the few places that offers large-scale reserves and its energy sector is one of the few in the world not closed off to foreigners. Risks in other oil-producing regions have increased and Russia is not engaging in Latin American-type expropriation. Although the Russian government will not allow one of Russia's major oil companies to fall into foreign hands, it is likely to welcome minority participation of foreign companies, especially in difficult exploration projects.

Furthermore, international oil companies already operate in more demanding political and business environments than Russia, and are no strangers to dealing with authoritarian regimes. Oil producers tend to have significantly higher political risk and lower quality of institutions than other emerging markets, but Russia compares favourably with most oil producing countries.

We expect that these factors will lead to annual average FDI inflows into Russia of more than US$20 billion during the next five years – a significant amount, but still fairly modest as a proportion of GDP (at below 2 per cent per year). Although this will represent a notable improvement on Russia's past performance, it is still short of the country's potential. Even by 2010, Russia's total stock of inward FDI (projected at US$167 billion) will amount to only about 12 per cent of GDP.

In our forecasting model, FDI inflows are dependent on a country's GDP; the Economist Intelligence Unit's index of the quality of the business environment; US$ wages; a measure of natural resource endowments; a privatisation index (measuring the availability of assets for sale and the readiness to sell to foreigners); and the share of the FDI stock in GDP at the start of the period (a measure of potential follow-on investment). The model can also be used to estimate the extent to which FDI inflows into Russia over the next five years will still fall below potential, despite the expected pick-up. The two crucial variables are the quality of the business environment and openness to asset sales to foreigners, with a similar impact on overall FDI flows. A more open policy on sales (privatisation index equal to the average for the transition region as a whole) would lift average annual inflows by almost 50 per cent to a projected US$32 billion. Similarly, if Russia's business environment was of the average quality of East Central Europe, annual FDI inflows into the country would be almost US$32 billion.

There are, furthermore, risks even to the relatively benign baseline FDI outlook. Although a sharp and sustained plunge in oil prices is unlikely, Russia remains highly vulnerable to that risk. Much of manufacturing will be adversely affected by real rouble appreciation. Many negative features of the business environment will persist, including an inefficient bureaucracy and judicial system. There are also some question marks about political stability in the post-Putin era after 2008.

Survey evidence suggests that Russia will be one of the world's leading destinations for FDI over the next few years

Putting Central Asia back on the Silk Road

Mike Pfister, Division on Investment, Technology and Enterprise Development,
United Nations Conference on Trade and Development (UNCTAD)

Economic reform in the republics of Central Asia and China's western provinces is opening up new investment opportunities

The Silk Road was the historic term for the transcontinental trade route between Europe and Asia that in 200 BC linked two great empires – the Roman Empire in the West and the Court of China in the East. The main route of the Silk Road connected Chang'an (modern day Xi'an) with Constantinople, and endured for several centuries. Today, the Silk Road Initiative aims to stimulate trade and investment in Central Asia under the leadership of the governments of China, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, thereby helping the region that was once sidelined by the march of history to reclaim its prosperity[1].

Since their independence from the Soviet Union in 1991, the Central Asian countries have witnessed a strong wave of privatisation and market-oriented reforms. The Silk Road region has emerged as one of the most dynamic regions in terms of growth, with a strong potential for investment. To reap the wide range of opportunities, a regional approach and commitment by the respective governments and the private sector through close partnerships is now needed.

The Silk Road region has emerged as one of the most dynamic regions in terms of growth, with a strong potential for investment

The economic backdrop improves

With the exception of China, the Silk Road comprises landlocked economies, with Uzbekistan being one of the two countries in the world being double land-locked, with none of its neighbours having access to the sea either. Yet these have all shown impressive growth figures. The region's gross domestic product (GDP) rose an impressive 10 per cent per annum in 2002-2004, from 6 per cent in 1997-2001. This becomes even more remarkable when these figures are benchmarked against the 5.2 per cent growth of all transition economies in 2002-2004[2].

Growth in the region goes hand in hand with the economic momentum in in Russia, China, South Asia, and the positive signs in Afghanistan. The growth in the oil and gas exporting economies (Kazakhstan, Uzbekistan) has been fuelled by high oil prices, increased FDI, investment projects in infrastructure and sound macroeconomic management[3]. The non-oil exporters have benefited greatly from the high gold and cotton prices and textile exports. These have been coupled with a flourishing manufacturing sector and a rise in manufactured exports. Not only did the heavy industry sectors boom, like in Kazakhstan, but the labour-intensive commodities in textiles and garments also witnessed upsurges[4].

Table 1 displays some stylised facts about the Silk Road. The region consisted of 71 million people in 2003, generated a GDP of around US$65 billion in 2000, and grew by an average 6.8 per cent per annum between 1999 and 2003. Thus, the Silk Road represents a large and growing market that is similar in population to that of Turkey, with about 10 million more people than the UK and France, and around 10 million fewer people than Germany.

Table 1: The aggregated five Silk Road countries, stylised facts, 1999-2003

	1999	2000	2001	2002	2003
The Silk Road region *(a)*					
Population, million people	68	69	70	71	71
--- Incl. whole China	1,304	1,313	1,323	1,332	1,340
GDP, billion US$, constant prices	46	51	55	59	65
--- Incl. whole China	1,034	1,116	1,201	1,300	1,420
Real GDP growth, regional average	4.29	7.11	8.27	6.24	8.25
--- Incl. whole China	4.29	7.07	8.15	6.28	7.95
Real GDP per capita, regional average *(b)*	569	614	669	717	773

Source: UNCTAD calculations, based on World Bank, World Development Indicators Online, 2005; and China State Information Centre.

Note: (a) Including Kazahkstan, Kyrgyz Republic, Tajikistan, Uzbekistan and Xinjiang Province of China

(b) Including China as a whole

FDI trends

2004 saw a rebound in global FDI after three years of declining flows. At US$648 billion, world FDI inflows were 2 per cent higher in 2004 than in 2003. More impressively, inflows to developing countries surged by 40 per cent. As a result, developing countries' share of world FDI inflows was 36 per cent, the highest level since 1997. The United States retained its position as the number one recipient of FDI, followed by the UK and China[5].

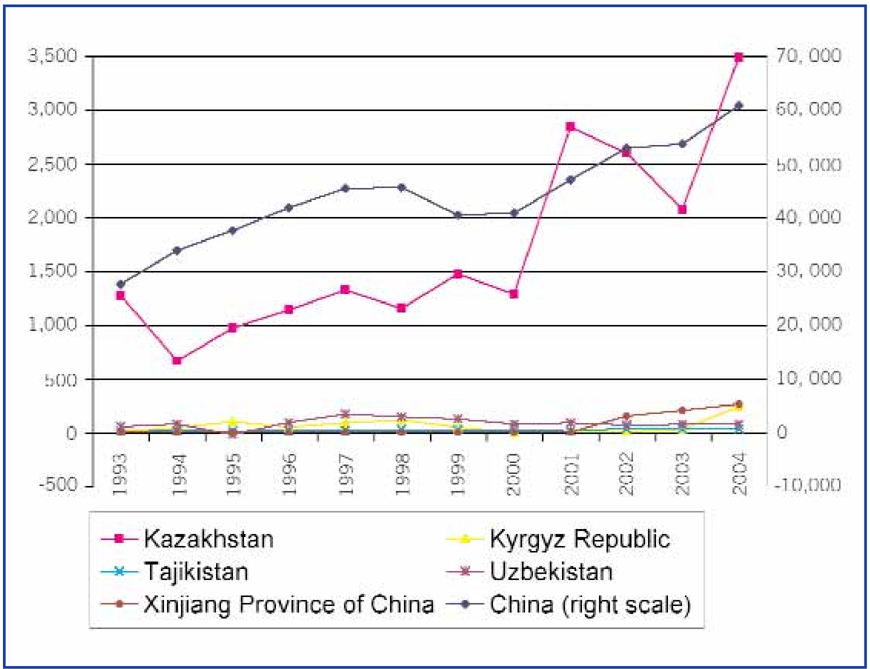
Despite the surging FDI inflows in China, inflows are rather limited in the Silk Road region as a whole. For instance, with around US$260 million of FDI in Xinjiang in 2004, the province accounted for only a fraction of China's US$50 billion FDI inflows.

Only Kazakhstan was able to attract large amounts of FDI, up to US$3.5 billion in 2004. From 1999 to 2003 FDI reached 9.3 per cent of GDP on average and contributed to just over 40 per cent of total gross fixed capital formation.

The major target sectors for FDI in the region are oil, energy, export-oriented manufacturing, agriculture and services, especially tourism. It is important to note that China plays an increasing role for the other Silk Road countries with their large market as an FDI origin. Also, the FDI potential indices for the Silk Road countries show positive improvements for China, Kazakhstan and Kyrgyzstan, thereby adding to the Silk Road's FDI attractiveness.

Economic growth in Central Asia will remain in the range of 9 per cent per annum for the next three years

Figure 1: FDI in the Silk Road region, 1993-2004



Prospects for growth and regional opportunities

According to the Asian Development Bank (ADB), economic growth in Central Asia will remain in the range of 9 per cent per annum for the next three years, backed by high projections for oil, gas and non-oil export commodities prices, global energy demand, and an expansion of the respective service sectors. In addition, China is expected to continue on a solid economic path of 8 per cent growth over the next decade[6].

If the Silk Road countries remain committed to implementing policy reforms, elaborating market- and business-friendly strategies and especially to taking advantage of regional co-operation initiatives, such as the Silk Road Initiative, the following scenario looks realistic[7].

Economic policy reforms initiated to date will accelerate in the region and a market economy will become more apparent. The trade regime, inter-regional as well as with the rest of the world, will remain a liberal one and there will be visible progress in large-scale privatisation, financial sector liberalisation and corporate governance. Export promotion strategies will be sharpened in the non-oil economies, along with the creation of relevant incentives and institutions. Furthermore, meaningful steps on interest rate liberalisation, reform of state-owned banks, and institutional development of capital markets will be expected. As privatisation progresses and business procedures are modernised and streamlined, a vibrant private sector will emerge.

Under this 'best scenario', a number of regional initiatives, such as the Silk Road Initiative and ADB's Central Asia Regional Economic Co-operation (CAREC) programme, will contribute to the coherent development of the Silk Road as a region, including in such areas as transport, trade and energy. Concrete

As privatisation progresses and business procedures are modernised and streamlined, a vibrant private sector will emerge

projects could include an integrated rail and road network system, harmonised customs codes, rationalised border procedures and the adoption of best practices in information and inspection systems. Institutional improvements will lead to a reduction of non-tariff barriers to regional trade and an efficient regional energy market will come about through tariff reforms and investments in regional energy infrastructure.

Regional economic diversification will be fed through a clear industrial competitiveness strategy. Predominantly, such a strategy would entail investment promotion and targeting, linkages between Silk Road enterprises with global transnational corporations, industry tailor-made investments in human capital, and restructuring of R&D and technology institutions.

This scenario will lead to Silk Road oil exporters benefiting from the regional co-operation initiatives and a regulatory environment that translates into integrated transportation networks and increased efficiency from price and tariff reforms. The non-oil exporting countries will benefit from industrial development as well as from enhanced regional co-operation. Based on these assumptions, the ADB predicts an average gain of about 20 per cent until 2015 resulting from greater regional co-operation, a strengthened policy framework, and moves towards a more competitive private sector environment. Currently, the Silk Road Initiative is preparing an investors' guide, which will provide deeper insights into regional business opportunities, as well as more sector-specific perspectives.

Overcoming the hurdles

With the exception of China, all the Silk Road countries are facing typical challenges of transition economies and emerging markets. Trade has yet to be used as a driving force for the region's economic development and is stifled by the imposition of complex tariff and non-tariff barriers, as alluded to earlier[8].

Investment flows from abroad, with the notable exceptions of China and oil-rich Kazakhstan, have been weaker than expected. In addition, insufficient physical infrastructure, inadequate institutional capacity, and poor implementation of regional agreements are all factors that hinder economic integration.

The Silk Road countries are very diverse in socio-economic and political terms. One of the main challenges therefore is to help create capacity and mechanisms for efficient co-operation and integration in this region with shared historical ties, including a strong branding and marketing drive.

Regional initiatives should aim at presenting the Silk Road region as *one investment destination,* enabling concrete branding. To reconcile the interests of potential investors with the region's strong macroeconomic fundamentals, involved parties need to harmonise their legislation on foreign investment and their investment promotion efforts. To speed up the

The Silk Road Initiative (SRI): key facts

The SRI is a regional UN Development Programme (UNDP) initiative that aims to enhance co-operation and development among China*, Kazakhstan, Uzbekistan, Kyrgyzstan and Tajikistan. It focuses on facilitating public private partnerships in three main areas: investment, trade and tourism.

The Initiative is launching sustainable capacity-building mechanisms, using the concept of 'seed money'. Through the establishment of regional mayors' and investment forums, a Silk Road city award, and the organisation of study tours for business communities, it supports the Silk Road countries in their efforts to reap the rewards from regional co-operation, and to further develop and prosper.

Goals:
- Improve policy and legal conditions for trade
- Initiate and attract investment
- Promote and attract tourism

Major Partners
- UN Conference on Trade and Development (UNCTAD)
- World Tourism Organization (UNWTO)
- Shanghai Cooperation Organization (SCO)
- BOAO Forum for Asia

For more information, please visit: www.silkroad.undp.org.cn

** The SRI focus in China is on its western provinces of Xinjiang, Gansu, Ningxia and Shanxi*

current process, a medium-term target for the establishment of common FDI legislation should be considered. There are concrete steps in this direction, such as the free trade area envisaged under the auspices of the Shanghai Cooperation Organization (SCO). As the process towards a free trade zone requires substantial legal harmonisation, the issue of convergence of the FDI framework could be incorporated into such negotiations.

Transparency is essential

Also needed are region-wide efforts to tackle the problem of *lack of transparency* in the investment process. To spread the harmonisation of existing laws across the region, special emphasis has to be placed on the harmonisation of *practices* to enforce those laws.

For instance, the publication of regional best practices combined with best practices awards could help to ensure success. Transparency issues should be included in the negotiation framework of any forum created for the Silk Road.

Each of the countries should clearly *define its target sectors* for FDI and make this information publicly available. Based on these national targets, the countries should formulate their regional targets, thereby facilitating regional branding as one investment destination. This common regional strategy has to be carefully co-ordinated to minimise competition in the attraction of FDI within the region.

Priority sectors

Based on the FDI trends presented earlier, three areas of focus could be envisaged: mining, oil and gas; petrochemicals; and power and energy – all interlinked sectors. This provides an excellent platform for a vision based on the region's competitive advantage.

Second, the transportation sector is deemed to be a promising element of the regional FDI strategy if the Silk Road is considered as one network from East Asia to Western Europe. Once this network is revived on a large scale, the Silk Road has the prospect to prosper from increasing transit transportation, as the old oasis towns did some 2,000 years ago.

Third, in the area of services, the tourism sector presents golden opportunities. With an abundant cultural heritage and sites along the ancient Silk Road, the prospect of branding the region as one single tourist destination is realistic. Within the context of the Silk Road Initiative, the World Tourism Organization (UNWTO) has jumpstarted a number of initiatives[9].

A *persistent infrastructure deficit* within the region is a serious impediment to intra- and inter-regional trade. International organisations such as the ADB, UNESCAP and World Bank have sought to address this problem since the early 1990s with multi-million dollar pump-priming initiatives that have helped to create the conditions for attracting FDI. However, recent studies show that the infrastructure is still relatively poor, which poses a major impediment for trade and economic growth.

Next steps

There are three essential steps. First, a bundling of existing infrastructure projects could help pinpoint areas of immediate concern from a master plan perspective. In the long term, the master plan could more effectively channel funds to the most promising region-wide projects. Second, to offer a vision of promising returns for potential investors, the Silk Road should build on the legacy of the ancient Silk Road as a transport network connecting the prospering regions of Eastern China and Europe. Third, to attract FDI directly into transport infrastructure projects, innovative public-private partnership initiatives have to be created, such as toll roads and airport developments.

Branding and marketing the Silk Road

The branding strategy for the Silk Road should be based on five pillars: positioning, cohesiveness, momentum, opportunities and partnership. The Silk Road Investment Forum held in Xi'an, China, on 7-9 June 2006 encompassed these themes and was the first of a series of annual forums, which will allow concrete benchmarking of the various private and public sector commitments and policy efforts.

Mechanisms such as the Silk Road Investment Forum create a platform for joint strategy development, political mobilisation and commitment by all

The Silk Road should build on the legacy of the ancient Silk Road as a transport network connecting the prospering regions of Eastern China and Europe

participating authorities. This feature of cohesiveness is a key to success given the transnational nature of the region.

So the Silk Road is a region on the move – one that has to be tapped. Investors are attracted to such areas, and the region should aim at reinventing itself in a new forward-looking context, whilst building on tradition.

The brand strength of the Silk Road is rooted in the diversity rather than similarity of opportunities. The region covers four countries and four Chinese western provinces, thereby obviously presenting a wide array of investment opportunities. Close partnership between investors, host communities and the Silk Road governments themselves will seal the commitment to making the Silk Road an attractive investment destination[10].

The Road ahead

The Silk Road is an investment destination strategically placed to service the new, partly untapped mass consumer markets of tomorrow in China, Central and Western Russia, India and the Middle East. The Silk Road Initiative lays the foundation for capacity building through a framework of both inter- and intra-regional co-operation among the five countries that will develop local markets, increase levels of FDI, stimulate cross-border trade and contribute to more equitable and balanced economic growth.

The Initiative presented here has a long-term expansion potential to include neighbouring nations such as Afghanistan, Pakistan, South Korea, Japan and Mongolia – which would eventually create a powerful trading bloc with considerable clout.

Endnotes

[1] Passow, Samuel, *op cit*.
[2] ADB, *Central Asia in 2015*, p.2
[3] *Regional Cooperation Strategy and Program for Central Asia Regional Economic Cooperation (CAREC) Member Countries (Azerbaijan, Kazakhstan, Kyrgyz Republic, Mongolia. People's Republic of China, Tajikistan, Uzbekistan) 2005-2007*, p. i
[4] *Central Asia in 2015*, p.2
[5] *World Investment Report 2005* (UNCTAD), p.xix
[6] ADB, Central Asia in 2015, p.7
[7] Note: This scenario is based on *Central Asia in 2015* (ADB) p.9-11
[8] Hübner, Wojciech, UNDP Silk Road Initiative, *Annual Progress Report*, p.2
[9] UNWTO, *Tourism Pearls of the Silk Road*
[10] Vokes, Clive *op cit*.

References

• Asian Development Bank, *Central Asia in 2015*, CAREC Policy Brief no. 1, 2005, www.adb.org/Carec/PolicyBriefs/CAREC-Policy-Brief-01-2005.pdf
• Asian Development Bank, *Regional Cooperation Strategy and Program for Central Asia Regional Economic Cooperation (CAREC) Member Countries (Azerbaijan, Kazakhstan, Kyrgyz Republic, Mongolia. People's Republic of China, Tajikistan, Uzbekistan), 2005-2007*, July 2004, www.adb.org/Documents/CSPs/CAREC/2004/CSP-CAREC-2004.pdf
• Hübner, Wojciech, *Annual Progress Report*, UNDP Silk Road Initiative, UNDP China, Beijing, China, 2005.
• Passow, Samuel, University of Kent, informal interviews, February 2006, Geneva
• United Nations Conference on Trade and Development, *World Investment Report 2005*, Geneva, 2005, www.unctad.org/en/docs/wir2005_en.pdf
• Vokes, Clive, informal interviews,Geneva, January 2006.
• World Tourism Organization, *Tourism Pearls of the Silk Road*, Madrid, 2005.

Acumen Fund
www.acumenfund.org

Africa Confidential
www.africa-confidential.com

African Development Bank
www.afdb.org

African Rural Energy Enterprise Development (AREED)
www.areed.org

African Union
www.africa-union.org

Amnesty International
www.amnesty.org

Arab Bank for Economic Development in Africa
www.badea.org

Asian Development Bank
www.adb.org

Asia-Pacific Economic Cooperation
www.apec.org/apec.html

Association for Women in Development
www.awid.org

Association of Southeast Asian Nations (ASEAN)
www.aseansec.org

Business for Social Responsibility
www.bsr.org

Bankwatch Network
www.bankwatch.org

Centre for Development and Population Activities
www.cedpa.org

Centre for Science and Environment, India
www.cseindia.org/

Centre for the Study of Transition and Development (CESTRAD)
www.iss.nl/cestrad

Civil G8
http://en.civilg8.ru

Climate Action Network
www.climatenetwork.org

Climate Ark
www.climateark.org

Climate Institute
www.climate.org

Coalition for Environmentally Responsible Economies (CERES)
www.ceres.org

Commission for Africa
www.commissionforafrica.org

Conference Board
www.conference-board.org

Corporate Social Responsibility Europe
www.csreurope.org

Council of Europe
www.coe.int

Council of the European Union
http://ue.eu.int

Digital Divide Network
www.digitaldividenetwork.org

Digital Opportunity Channel
www.digitalopportunity.org

Earth Charter Initiative
www.earthcharter.org

Earth Council
www.ecouncil.ac.cr

Earth Institute, Columbia University
www.earthinstitute.columbia.edu

Earth Policy Institute
www.earth-policy.org

Economist Intelligence Unit (EIU)
www.eiu.com

Eden Foundation
www.eden-foundation.org

Energy Security
www.iags.org/es.html

Equator Initiative
www.equatorinitiative.org

EU Commission Directorate General (Development)
http://europa.eu.int/comm/dgs/development/index_en.htm

EU Commission Directorate General (Energy)
http://ec.europa.eu/energy/index_en.html

EU Commission Directorate General (Environment)
http://ec.europa.eu/comm/environment/index_en.htm

EU Commission Directorate General (Trade)
http://ec.europa.eu/comm/trade

European Association of Development Research & Training Institutes
www.eadi.org

European Bank for Reconstruction and Development
www.ebrd.com

European Commission
www.europa.eu.int

European Environment Agency
www.eea.eu.int

European Investment Bank (EIB)
www.eib.org

European Round Table of Industrialists
www.ert.be

European Union (Europa)
www.europa.eu.int

Food and Agriculture Organization
www.fao.org

Foundation for International Environmental Law and Development (FIELD)
www.field.org.uk

Future Forests
www.futureforests.com

Global e-Schools and Communities Initiative
www.gesci.org

G8 Information Centre, University of Toronto
www.g8.utoronto.ca

G8 Online
www.g8online.org

G8 St Petersburg Russia 2006 Official Website
http://en.g8russia.ru

Global Alliance for Vaccines and Immunization
www.gavialliance.org

Global Environment Facility
www.gefweb.org

The Global Fund to Fight AIDS, Tuberculosis and Malaria
www.theglobalfund.org/en

Global Information Clearinghouse Initiative
www.global-clearinghouse.org

Global Movement for Children
www.gmfc.org

Global Witness
www.globalwitness.org

Hadley Centre for Climate Predication and Research
www.metoffice.com/research/hadleycentre/index.html

Human Rights Watch
www.hrw.org

IDRC's International African Bandwidth Map
www3.sn.apc.org/index.html

Information for Development Programme
www.infodev.org

Institute of Development Studies
www.ids.ac.uk/ids

Institute of Environmental Management & Assessment (IEMA)
www.iema.net

Institute for Global Environmental Studies (IGES)
www.iges.or.jp

Inter-American Development Bank
www.iadb.org

Intergovernmental Panel on Climate Change
www.ipcc.ch

International AIDS Vaccine Initiative
www.iavi.org

International Chamber of Commerce
www.iccwbo.org

International Crisis Group
www.crisisgroup.org

International Development Research Centre, Canada
www.idrc.ca

International Emission Trading Association
www.ieta.org

International Energy Agency
www.iea.org

International Finance Corporation (IFC)
www.ifc.org

International Fund for Agricultural Development (IFAD)
www.ifad.org

International Institute for Communication and Development
www.iicd.org

International Institute for Environment and Development (IIED)
www.iied.org

International Institute for Strategic Studies
www.iiss.org

International Institute for Sustainable Development (IISD)
www.iisd.org

International Monetary Fund
www.imf.org

International Telecommunications Union
www.itu.org

International Water Association
www.iwahq.org.uk

Islamic Development Bank
www.isdb.org

J8 2006
www.j8summit.com

Leadership for Environment and Development (LEAD)
www.lead.org

Malaria Vaccine Initiative
www.malariavaccine.org

Marine Stewardship Council
www.msc.org

Measles Initiative
www.measlesinitiative.org

M.S. Swaminathan Research Foundation (MSSRF)
www.mssrf.org

MTCT-Plus, Columbia University
www.mtctplus.org

National Strategies for Sustainable Development (NSSD)
www.nssd.net

Nelson Mandela Institute
www.nmiscience.org

New Partnership for Africa's Development (NEPAD)
www.nepad.org

North Atlantic Treaty Organisation (NATO)
www.nato.int

Ocean Alliance
www.oceanalliance.org

One World
www.oneworld.net

Open Society Institute
www.soros.org

Organisation for Economic Co-operation and Development (OECD)
www.oecd.org

OECD Development Centre
www.oecd.org/dev

Organization for Security and Co-operation in Europe
www.osce.org

Our Planet (UNEP magazine)
www.ourplanet.com/imgversn/planethme.html

Overseas Development Institute
www.odi.org.uk

Potsdam Institute for Climate Impact Research
www.pik-potsdam.de

President of Russian Federation Official Website
www.kremlin.ru/eng/index.shtml

Prime Minister of Russian Federation Official Website (Russian only)
www.government.ru/government/minister/index.html?he_id=761

Pugwash Conferences on Science and World Affairs
www.pugwash.org

Rainforest Action Network
www.ran.org

Regional Environmental Center for Central and Eastern Europe
www.rec.org

Russian Federation Ministry of Foreign Affairs
www.mid.ru

Save the Children UK
www.savethechildren.org.uk

Society for International Development
www.sidint.org

Solar and Wind Energy Resource Assessment
http://swera.unep.net

South-North Development Monitor (SUNS)
www.sunsonline.org

Stockholm Environment Institute
www.sei.se/welcome.html

Tata Energy Research Institute
www.teriin.org

TerraGreen
www.teriin.org/terragreen

Third World Network
www.twnside.org.sg

Transatlantic Policy Network
www.tpnonline.org

Trilateral Commission
www.trilateral.org

United Nations
www.un.org

UNAIDS
www.unaids.org/en

United Nations Capital Development Fund (UNCDF)
www.uncdf.org

United Nations Children's Fund (UNICEF)
www.unicef.org

United Nations Commission on Sustainable Development
www.un.org/esa/sustdev

United Nations Conference on Trade and Development (UNCTAD)
www.unctad.org

United Nations Department of Economic and Social Affairs Division for Sustainable Development
www.un.org/esa/sustdev/partnerships

United Nations Development Fund for Women (UNIFEM)
www.unifem.undp.org

United Nations Development Group (UNDG)
www.undg.org

United Nations Development Programme (UNDP)
www.undp.org

UNDP Growing Sustainable Business (GSB)
www.undp.org/business/gsb

United Nations Environment Programme (UNEP)
www.unep.org

United Nations Educational, Scientific and Cultural Organization (UNESCO)
www.unesco.org

United Nations Foundation
www.unfoundation.org

United Nations Framework Convention on Climate Change
http://unfccc.int

United Nations Fund for International Partnerships (UNFIP)
www.un.org/unfip

United Nations Girls' Education Initiative
www.ungei.org

UN Global Compact
www.unglobalcompact.com

UN Habitat
www.unhabitat.org

UNICT Task Force
www.unicttaskforce.org

United Nations Millennium Project
http://unmillenniumproject.org

United Nations Population Fund (UNFPA)
www.unfpa.org

United Nations Research Institute for Social Development (UNRISD)
www.unrisd.org

United Nations Secretary-General
www.un.org/News/ossg/sg

United Nations University
www.unu.edu

World Bank
http://worldbank.org

World Bank Institute
www.worldbank.org/wbi

World Business Council for Sustainable Development
www.wbcsd.org

World Conservation Union (IUCN)
www.iucn.org

World Economic Forum
www.weforum.org

World Health Organization
www.who.int/en

World Institute for Development Economics Research (WIDER), UN University
www.wider.unu.edu

World Meteorological Organization
www.meteo.org/wmo.htm

World Resources Institute
www.wri.org/wri

World Trade Organization
www.wto.org

Worldwatch Institute
www.worldwatch.org

World Water Council
www.worldwatercouncil.org

Wuppertal Institute for Climate, Environment, Energy
www.wupperinst.org

July 2006

Finland assumes Presidency of the EU, 1 July (to 31 December)
www.eu2006.fi

August 2006

UNESCO World AIDS Conference, Toronto, Canada, 13-16 August
www.unesco.org

World Bank Institute Course: Achieving the Millennium Development Goals – Poverty Reduction, Reproductive Health and Health Sector Reform, Bangkok, Thailand, 14-25 August
http://siteresources.worldbank.org/HNPLP/Resources/461053-1142350259918/bangkok.pdf

World Renewable Energy Congress IX and Exhibition, Florence, Italy, 19-25 August
www.wrenuk.co.uk/wrecix.html

World Water Week, Stockholm, Sweden, 20-26 August
www.worldwaterweek.org

UNESCO International Disaster Reduction Conference, Davos, Switzerland, 27 August-1 September
www.unesco.org

September 2006

WEF China Business Summit, Beijing, China, 10-11 September
www.weforum.org/site/homepublic.nsf/Content/China+Business+Summit+2006

Sixth Summit Meeting of the Asia-Europe Cooperation Forum (ASEM 6), Helsinki, Finland, 10-11 September
www.asem6.fi

UN General Assembly 61st Session, New York, USA, 12 September
www.un.org

Youth Employment Summit (YES 2006!), Nairobi, Kenya, 13-16 September
www.yesweb.org/2006

2006 Annual Meetings of the International Monetary Fund and the World Bank Group, Singapore, 19-20 September
http://app.singapore2006.org/index.asp

October 2006

World Forum on Energy Regulation III, Washington D.C., USA, 8-11 October
www.worldforum2006.org

World Food Day, 17 October
www.fao.org

EU Informal Summit, Lahti, Finland, 20 October
www.vn.fi/eu/suomi-ja-eu/2006/en.jsp

World Congress on Communication for Development, Rome, Italy, 25-27 October
www.devcomm-congress.org/worldbank/macro/2.asp

Berne Union Annual General Meeting, Amsterdam, the Netherlands, 30 October-3 November
www.berneunion.org.uk

November 2006

US Congress Midterm Elections, 7 November

APEC Economic Leaders' Meeting Week, Hanoi, Vietnam, 12-19 November
www.apec2006.vn

UNESCO 6th Meeting of the High-Level Group on Education for All, Cairo, Egypt, 14-16 November

Civil G8-2006 Final NGO Conference, Moscow, Russia, 21-22 November

World Economic Forum, Istanbul, Turkey, 23-24 November
www.weforum.org/site/homepublic.nsf/Content/World+Economic+Forum+in+Turkey

2006 NATO Summit, Riga, Latvia, 28-29 November
www.nato.int

December 2006

12th ASEAN Summit and related meetings, Cebu, Philippines, December
http://cebu-online.com/makeitcebu/12thaseansummit

World AIDS Day, 1 December

ITU Telecoms World, Hong Kong, 4-8 December
www.itu.int/WORLD2006

European Council, Brussels, Belgium, 14-15 December
http://ue.eu.int/cms3_fo/index.htm

January 2007

Germany assumes Presidency of the EU, 1 January (to 30 June)

Germany assumes Presidency of the G8, 1 January (to 31 December)