

Chair's Report to the G8 Hokkaido Toyako Summit:

Gleneagles-Dialogue on Climate Change, Clean Energy and Sustainable Development

The Ministerial Meeting of the Dialogue on Climate Change, Clean Energy and Sustainable Development was launched at G8 summit at Gleneagles 2005. The first meeting was held in London in Oct. and Nov. 2005, followed by the second meeting in Monterey, Mexico in October, 2006, the third meeting in Berlin, Germany in September 2007 and the fourth and final meeting in Chiba, Japan in March 2008.

These meetings were attended by ministers and senior officials responsible for energy and environment issues from G8 countries, from Australia, Brazil, China, India, Indonesia, Mexico, Nigeria, Poland, Republic of Korea, South Africa, Spain and the Presidency of the Council of the EU (Finland at the second meeting, Portugal at the third meeting and Slovenia in the fourth meeting). We were joined by senior officials from international organizations including the International Energy Agency, the World Bank and Regional Development Banks, legislators from the GLOBE, related business groups and non-governmental organizations. IEA and the World Bank have continued their consideration to the process in accordance with the Gleneagles Plan of Action and continuously made their input to the Gleneagles Dialogues.

Outcomes of the Dialogues

Annex of this document is the Chair's summaries of the Gleneagles Dialogues. These summaries have been issued on the responsibilities of Chair of each Dialogue.

Chairs' Conclusions from 1 November Ministerial meeting on the Dialogue on Climate Change, Clean Energy and Sustainable Development:

Margaret Beckett, Secretary of State for Department of Environment, Food and Rural Affairs, UK; and

Alan Johnson, Secretary of State for Department of Trade and Industry, UK.

Our meeting today marked the first Ministerial meeting of the Dialogue on Climate Change, Clean Energy and Sustainable Development launched at the G8 Summit at Gleneagles on 6-8 July.

It was attended by Ministers and senior officials with responsibility for energy and environmental issues from the G8 and from Australia, Brazil, China, India, Indonesia, Mexico, Nigeria, Poland, South Africa, South Korea, and Spain, and by senior officials from organisations including the World Bank, UN Framework Convention on Climate Change, Intergovernmental Panel on Climate Change, International Energy Agency, and the United Nations Environment Programme.

Our discussions were complementary to the UN Framework Convention on Climate Change, including its ultimate objective to stabilise greenhouse gases in the atmosphere at a level that prevents dangerous anthropogenic climate change, and to the Kyoto Protocol.

Our discussions focused on the serious and linked challenges of tackling climate change, promoting clean energy and achieving sustainable development globally.

The Gleneagles Plan of Action on Climate Change Clean Energy and Sustainable Development

We took note of the Plan of Action agreed by the G8 countries at Gleneagles, including the considerable progress since July in taking forward implementation. In particular, we took note of:

- the successful launch by the World Bank of work to develop a comprehensive framework for investment in clean energy and sustainable development;
- the analysis of the International Energy Agency on alternative energy strategies and the work programme it has agreed to promote action on energy efficiency and cleaner coal;
- the range of national and international activities undertaken by G8 countries to implement individual commitments in the Plan of Action, and their willingness to explore opportunities to build on this progress.

Strategic challenges of climate change, clean energy and sustainable development

Roadmaps for the transition to a low-carbon economy

We explored the timescales on which technologies need to be developed and deployed to meet our goals for a secure and sustainable energy future and to avoid the worst impacts of climate change.

We noted that greenhouse gas emissions must slow, peak and decline and will need to be reduced to well below the levels we see today. We heard that to stabilise greenhouse gas concentrations at, for example, twice their pre-industrial level, global emissions would have to peak in 2030.

We recognised the value of setting out clear pathways to achieve our shared goals for climate change, clean energy and sustainable development, including:

- the role of national strategies and action plans which set out the timescales to develop and deploy low carbon technologies;
- the need for roadmaps to help accelerate the development of lower-carbon technologies in particular sectors;
- the need to balance long-term goals with clear priorities for short term action;
- the need to motivate action by individuals and businesses, including through raising public awareness.

In addition, the use of fiscal instruments to exploit the huge potential of energy efficiency can bring about greater economic benefits for countries.

We identified a number of short-term priorities including interventions to stimulate the up-take of existing energy efficient products by consumers, and to avoid costly mistakes in the next generation of energy infrastructure investment.

The success of this transition to a low-carbon economy will require that the three policy communities of environment, energy, and economic policy work together in an integrate manner.

New approaches to technology cooperation

We noted the importance of strengthening both research into new technologies and the deployment of existing technologies, which depend both on national policies and on international cooperation.

We explored the concept of new paradigms for international cooperation on climate change, put forward at Gleneagles by China, India, Brazil, South Africa and Mexico, to promote wider access to cleaner energy technologies and accelerate their deployment.

We heard about regional initiatives, such as the EU-China partnership (including action to develop and demonstrate near zero emission coal technologies), the EU-India Initiative, the Asia Pacific Partnership and work to scale up financing of low

carbon infrastructure stimulated by the Economic Commission of Latin America and the Caribbean.

We agreed that it would be valuable to develop our work in this area, focusing on the ideas put forward today:

- identifying priority areas for cooperation between developed and developing countries and considering goals for short-, mid- and long-term cooperation on key areas;
- assisting developing countries to improve the enabling environment for the transfer of technology, including through the policy, financing and regulatory frameworks and through examining the role of intellectual property rights;
- exploring new approaches to finance technology acquisition and transfer.

Scaling up investment in clean energy technologies

Major investment is needed in energy infrastructure to meet energy needs and tackle climate change. The majority of this investment will come from the private sector. Clear policy signals are needed to channel it towards lower carbon technologies.

We heard that there is no shortage of appropriate technologies that can be deployed in the short term to reduce our carbon emissions. The challenge is to create the incentives for private sector investment, including through market-based instruments and carbon finance. "Long, loud and legal" frameworks can accelerate the commercialisation of cleaner technologies.

We noted that emissions trading in Europe is going well and providing a powerful incentive for investment in reducing emissions in the near term.

Parties to the Kyoto Protocol highlighted the importance of the Clean Development Mechanism and discussed proposals to reinforce it and improve its operation.

We welcomed work by the World Bank, regional development banks and Economic Commission of Latin America and the Caribbean to increase investment in lower carbon technologies in developing countries and emerging economies and to pilot new and innovative approaches.

We also noted the need for appropriate frameworks to provide incentives in R&D for the next generation of clean energy technologies, and to overcome the "valley of death" in which promising new technologies fail to achieve their commercial potential.

Next steps

We acknowledged that the UNFCCC remains the appropriate forum for negotiating future action on climate change, and looked forward to working together to advance the global discussion on long-term cooperative action to address climate change at the UN Climate Change Conference in Montreal later this month.

The parties to the Kyoto Protocol also looked forward to their first meeting in Montreal and to ensuring that the Protocol is working effectively to deliver its contribution to the ultimate objective of the UNFCCC.

We welcomed the Russian decision to focus on energy as a key theme of its G8 Presidency in

2006, and the offer from Japan to receive a report on the Dialogue at its G8 Summit in 2008.

We noted that the World Bank will bring forward proposals to its Spring Meeting on a comprehensive framework for investment in climate change, clean energy and sustainable development, and that the IEA will deepen its work on alternative energy strategies and strengthen its outreach to developing countries. We welcomed the continued commitment of both organisations to work with interested countries to help ensure that cleaner technologies are deployed as quickly as possible.

We agreed that we should take forward and deepen our discussions on climate change, clean energy and sustainable development. We noted that Ministers and officials with other responsibilities, including for development and finance, might wish to become involved in taking forward discussion of relevant topics, including adaptation.

We welcomed the offer from Mexico to host a Ministerial meeting of this Dialogue in 2006.

Chairs' Conclusions from Ministerial Meeting on the Gleneagles Dialogue on Climate Change, Clean Energy, and Sustainable Development – 3 - 4 October 2006, Monterrey, Mexico

Summary

The meeting we have chaired at Monterrey marks a significant step in the struggle of the international community to combat climate change. We heard authoritative presentations on

- the economics of climate change mitigation and adaptation,
- the costs of introducing new low-carbon technology sufficient to cut energy sector emissions consistent with stopping accelerating climate change, and
- the way the international finance institutions can organise public and private finance to help meet those costs.

We also heard from business, legislators and civil society, all of whom are looking for Governments to take a lead.

The overall message is one of increasing urgency. The basic science is no longer disputed. We now see that the economics demonstrate that early action is necessary. The increase in costs if we wait is rapid and substantial. Behind those costs lie real-world risks to growth and the health of populations, and the possibility of physical catastrophes. While there are still differences of view, the private sector is increasingly understanding that carbon emissions have a price. They can reflect that price in their activities and investment decisions, allowing the power of the market to be used to combat climate change, if they are clear that a carbon price is here to stay over the long term. It is therefore urgent to take forward the international negotiations so that the conditions for a tough but fair price are met.

Introduction

Our meeting on the 3rd and 4th of October was the second Ministerial session of the Dialogue on Climate Change, Clean Energy and Sustainable Development, which was launched at Gleneagles on 6-8 July 2005.

It was attended by Ministers, including the UK Foreign Secretary Margaret Beckett, and senior officials with responsibility for energy and environment issues from the G8 and from Australia, Brazil, China, India, Indonesia, Mexico, Nigeria, Poland, South Africa, South Korea, and Spain. We were joined by senior officials from organisations including the World Bank, Regional Development Banks, the UN Framework Convention on Climate Change (UNFCCC), the International Energy Agency (IEA), and the World Economic Forum (WEF) business group, as well as legislators from the Globe organisation.

Our discussions were complementary to the UNFCCC, particularly its ultimate objective of stabilising greenhouse gases in the atmosphere at a level that avoids dangerous climate change. Our discussions focused on the challenges of tackling the causes of dangerous climate change in our energy production and consumption systems and development pathways, and our need to promote economic growth and to adapt to long term changes, particularly in the developing countries.

The meeting was arranged around presentations by Sir Nick Stern on the economics of

climate change (previewing his Report to be published shortly), Claude Mandil on the IEA's work on the costs and potential of low carbon technologies, and Kathy Sierra of the World Bank on the Bank's Energy Investment Framework. The last two presentations derived from work undertaken in response to the conclusions of the Gleneagles summit and the first Ministerial meeting of the Dialogue in November 2005. We also heard compelling presentations from a series of business leaders and representatives of civil society, who emphasised the need for urgency from both of their different perspectives.

(1) Economics of action to tackle climate change; mitigation, adaptation and economic growth

Nick Stern's presentation of analysis from his forthcoming review of the economics of climate change helped us to explore the nature of the challenges of tackling climate change. In the discussion we explored how those challenges affect our investment choices and structures, and how this shows the need to develop appropriate and complementary national, regional and global policy frameworks that co-ordinate rather than compete with each other, strengthening the effectiveness of the measures. The main points discussed were:

Shape of the problem

- We are building consensus on the science of climate change, to reach an understanding of the economics of climate change.
- The financial effects of climate change are likely to be very damaging and very long lasting. The later we act, the more expensive it will be, but the costs are manageable if we begin now.
- The case for action is urgent – the window of opportunity for staying within a 450-550ppm range is closing. The costs of mitigation rise sharply for stabilization below this range, and for adaptation, the costs rise sharply beyond the upper limit of that range.

Scale of investment

- Climate change is an example of global market failure. Public policy, such as tax, trading or regulation, is required to send signals to the private sector to influence investment in lower carbon infrastructure in order to correct the market failure and reflect the social/global cost.
- Public and private investment flows, including the Global Environmental Facility (GEF), carbon finance and the Clean Development Mechanism (CDM), all play a key role in beginning to tackle some of incremental costs. The scale of future investment needs are much larger than current investment flows. There needs to be a substantial expansion of the global carbon market, including transforming the CDM to support much larger flows.
- We must look to cut emissions across all countries and sectors, including not just energy sector emissions but also emissions from other sources including forestry
- Existing institutions including the UNFCCC and the Kyoto Protocol provide a helpful basis for these discussions.
- International Financial Institutions (IFIs) have a key role to play in piloting new approaches and scaling up investment flows, but the expansion of the carbon market

should come from deeper reduction goals from developed countries, with a longer-term vision and greater ambitions, and an imaginative approach to reducing transaction costs for CDM and similar mechanisms.

Growth and development

- Emerging economies should not jeopardize their aspirations for growth and development, but a Business As Usual approach will actually impede development in the medium to long term.
- Economic growth is crucial, as it will provide the resources that will enable investment in technologies. Experience over the last ten years shows that there are diverse approaches to deal with climate change according to circumstances, but that we should focus on sustainable development as the best strategy.
- Inevitably, especially in the longer term, we will need adaptation. Adaptation is mainly driven by actions in the private sector, but public policy has a crucial role. The impacts of climate change on development also reinforce the importance of delivering on existing aid commitments.
- Adaptation has limits however and is not a substitute for mitigation. A framework of long term goals/objectives is needed to provide the incentives for adaptation as well as mitigation measures.
- The Gleneagles Dialogue is a valuable forum to make links and bridges between a long term goal and frameworks for adaptation and mitigation. These should include links between technology and financing, creation of more flexible and larger carbon markets, and a long term goal to provide certainty.

(2) New approaches to research, development and deployment of low carbon and adaptation technologies

We heard the IEA's latest assessment of world energy demand and supply, prepared at the request of G8 leaders at the Gleneagles Summit. We heard that even with the most optimistic assumptions about the rate of technological development, most energy will still come from fossil fuels by 2050, and that without further action, carbon dioxide emissions in 2050 will be some 137% higher than in 2003. The cost associated with low carbon and adaptation technologies is not beyond reach; none of the energy technologies in development have incremental costs greater than \$25 per tonne of carbon dioxide.

The main points discussed were:

Collaboration

- We are convinced of the necessity of action, and that a more sustainable energy future is possible with known technology. The costs are not out of reach and coordination helps to reduce them.
- Collaboration between developed and developing countries is essential, and we should focus on identifying the most successful elements of existing technology projects and consider ways in which to replicate these projects on a wider scale. We should also consolidate and build on existing analysis about the way in which technology and policy measures can both help provide energy security and tackle climate change.

- Public and private sectors must act urgently to adopt concrete measures, provide clear and predictable incentives, and look for long term goals, involving international organisations. Technology agreements between governments and industry should be explored, including the role of carbon finance in facilitating such agreements.

Cost

- It makes good economic and practical sense to adopt the lowest-cost measures first, as the cost of new technologies will be reduced over time by programmes (including standards and targets) to promote their use and by learning from this experience.
- Energy efficiency can make an immediate impact and provides significant value for money. Many energy efficiency measures offer savings.
- Governments need to offer clear and predictable policy frameworks which provide incentives to invest in low-carbon technology.

Access

- Developing countries need better access to finance to develop and deploy technologies, which should be explored through proposals such as how a New Paradigm could be developed to address technology transfer barriers.
- Technology transfer needs redefining. It is not just a matter of transferring Intellectual Property (IP) or capital equipment, but involves know-how and capacity building, something market forces do not address. Countries are not currently tackling these issues fast enough.

(3) Investment Frameworks for a low carbon future

We heard a presentation from the World Bank on the development and current state of their Energy Investment Framework (EIF) prepared following the Gleneagles discussions and the Plan of Action. The main points were:

- Countries welcomed the work being taken by the World Bank and Regional Development Banks, recognising the progress achieved so far and potential value for assisting developing countries in attracting the necessary public and private investment in low carbon energy and adaptation in line with national policy objectives.
- Mainstreaming climate change throughout the operations of IFIs is a key challenge for progressing the effectiveness of existing financing instruments and sources of finance, including monetary resources through the GEF as well as international carbon markets.
- Existing instruments should be scaled up to develop markets for energy efficiency and renewable energy technologies, once uncertainty about the future of the carbon market has been removed (through long term goals and commitments).
- There was a strong emphasis on the need for engaging the private sector, including private banks, in the EIF moving forward.
- Continued close cooperation between the IFIs is necessary to ensure a coherent approach to investment structures and initiatives.

- Given the scale of the challenge of adaptation and associated costs, climate risks need to be integrated within national planning processes and international finance.
- Governments recognised the need for long term frameworks to provide certainty to investors. Expanding the carbon market and providing certainty beyond 2012 is necessary to ensure low carbon investments, and it was noted that the EU Emissions Trading Scheme will continue longer-term and could allow for others to join in the future.

(4) Next steps

We thank the IEA for their analysis of the potential of new energy technologies. We look forward to further reports that will develop our understanding and inform policy developments, particularly:

- Further refinement of the analysis in Energy Technology Perspectives, especially on the incremental costs of low carbon technologies
- Development of tools to assist us in identifying the most effective policy options and best practice on energy efficiency, particularly the development of energy efficiency indicators and advice on international standards.

When developing these further reports, IEA should work closely with the World Bank and other multilateral initiatives such as REEEP, REN 21 and Medrep. It should also access expertise from business and wider civil society.

One area of particular concern to business and Governments, especially from the developing world, is the technical barriers and Intellectual Property Rights issues associated with research, transfer and deployment of new low carbon technology. We look forward to the continuation of work commissioned to identify the precise problems and their solutions.

We agree with the IEA's assessment of the crucial importance of progress with carbon capture and sequestration, and their view that significant improvements in energy efficiency will be fundamental if we are to reduce emissions cost-effectively. Improvements in energy efficiency will also bring benefits for global security of supply and competitiveness. We recognise the potential to develop a wider global initiative on energy efficiency. This idea should be discussed and developed further, through the Gleneagles dialogue and other forums. We welcome and support the European Commission's proposal to host a global conference on energy efficiency in January 2007.

We welcome the proposal coming from Mexico, Spain, the IADB, ECLAC, ESCAP, EBRD and the UK to create a working group to scale up responses to the energy and climate challenges ahead, examining programmatic approaches to the CDM, combining policies, finance and technologies, as well as identifying pilot activities under the IEF in energy efficiency, housing, carbon capture and storage and renewables.

We recognise the critical importance of an international cooperation framework for research, development, demonstration and deployment of low-carbon technologies. We welcome the extensive cooperation and collaboration already being taken forward through initiatives such as the IEA implementing agreements, the WIRE meetings, the Asia Pacific Partnership and Carbon Sequestration Leadership Forum. We need to develop an effective process to facilitate

replication on a much wider scale.

We thank the World Bank for their work so far, and look forward to suggested next steps:

- The offer of the WEF and the World Business Council on Sustainable Development (WBCSD) to work with the Banks to engage the private sector in the EIF, including through their regional meetings, was welcomed and some practical next steps agreed.
- Recognising that the Banks have strengths in different areas it was suggested that this could provide a useful basis for practical coordination on the respective Investment Frameworks being developed. One way could be with a cross-bank working on a sectoral basis such as: energy efficiency; renewable energy; transport; power sector management; reducing emissions from coal use; and adaptation.
- There was a call on the Banks to work with the World Bank and other development agencies to identify and integrate climate risks within their investment portfolios. Guidelines should be developed to enable screening of projects for climate benefits and risks.
- The IFIs should work together, in particular on developing international standards and methodologies to assess the benefits of low carbon and energy efficiency projects and initiatives.
- The IFIs could have a key role in developing a long-term carbon market. It was proposed to set up a taskforce to examine how the CDM can be scaled up.

The wider climate change agenda

The instruments and processes of the UNFCCC and (for those who have ratified it) the Kyoto Protocol are the primary fora for authoritative multilateral negotiations and agreement on climate change. However it is widely accepted that useful contributions to the work of those bodies or their procedures can be made by interested voluntary groupings. We therefore recommend that the conclusions, the information gathered and the ongoing work of this Gleneagles Dialogue should be taken into account in the workstreams started at the Montreal COP/MOP on the future of the Convention and on further developed country commitments.

In particular, while noting that there is no consensus as yet on the form of next steps in those international forums, we draw attention to the very widespread concern about the need to reduce uncertainty for the carbon markets and investment markets. We note the large number of participants and interested parties who have called for a longer-term goal or objective that will indicate the firm resolve of Governments to take further strong action on climate change beyond the end of the first Kyoto commitment period, and will help the markets perform the functions intended for them, including assistance to carbon-reducing projects under the CDM, which we believe needs rapid scaling-up to help provide a broader and more flexible carbon market. If there is to be no gap in the international climate regime, and therefore the value of carbon, after 2012, negotiations ought to be concluded in 2009.

We also note the great importance, in order for the international processes to move forward, of achieving clear progress in assisting the developing world to overcome its huge problems in adapting to long term climate change. There is specific business relating to the funding of adaptation, technology transfer, and the needs of Africa that requires to be successfully

concluded at the Nairobi COP/MOP next month.

We further note strong concerns expressed about the shortage of worked-up models to provide negotiators with ideas and alternative approaches to Parties' commitments as part of current urgent work on the future of the UN Convention. It would be useful for more such models to be developed and placed on the table; and this Gleneagles Dialogue could offer a location for voluntary discussion about them. However, we recognise the crucial importance of capacity building in developing countries to enable them to assess what these models might mean for them.

We are very encouraged by the close interest of civil society and business in the Gleneagles Dialogue work. We also welcome the work done by the G8 and +5 legislators in the parallel exchange of ideas of the GLOBE Climate Change Dialogue and look forward to receiving its results.

Conclusion

We welcome the intention of the German Government to make progress with the issues covered by this Dialogue during their 2007 G8 Presidency, and to receive further reports and proposals from the World Bank, the IFIs and the IEA. The third meeting of this dialogue will take place in Germany in early summer 2007 (arrangements for preparations for this meeting will be made in the coming months). We hope this meeting will among other things receive a fuller report on the continued implementation by the countries and institutions of the Gleneagles Plan of Action. We welcome the intention of the Japanese Government to take forward the Dialogue in 2008, with a report to the G8 summit in the summer.

We believe this meeting in Mexico has been a useful contribution to the development of a practical approach to climate change that treats energy and climate policies as inextricably linked, and now adds finance to the mix. But there is a very long way to go, and it is clear that we are not yet on the right path to combat the increasingly urgent challenge that climate change poses for all of us. We look to build on the work we have done in Monterrey.

Gleneagles-Dialogue on Climate Change, Clean Energy and Sustainable Development 3rd Ministerial Meeting

Berlin, 9-11 September 2007

Chairs' Conclusions

Our meeting from the 9th to the 11th of September 2007 was the third Ministerial session of the Dialogue on Climate Change, Clean Energy and Sustainable Development, which was launched at the G8 summit in Gleneagles in July 2005.

It was attended by Ministers and senior officials with responsibility for energy and environment issues from the G8 and from Australia, Brazil, China, India, Indonesia, Mexico, Nigeria, Poland, South Africa, Spain and Portugal, as current presidency of the EU. We were joined by senior officials from organisations including the World Bank, Regional Development Banks, the UN Framework Convention on Climate Change (UNFCCC), the International Energy Agency (IEA), and the World Business Council for Sustainable Development and the World Economic Forum (WEF) as business groups, non-governmental organisations, as well as legislators from the GLOBE organisation. The UN Secretary General's Special Envoys on Climate Change, Gro Harlem Brundtland and Ricardo Lagos provided important input to our meeting.

The chairs summarized the discussions as follows:

Our meeting concentrated on developing an integrated view on energy and climate policy with a focus on technology and investment in sustainable energy systems. We saw the need to move from the phase of strategy development to an era of implementation and foster concrete activities to realise the huge emission reductions technologies can offer. We recognised an urgent need for clear and predictable policy frameworks on the national and international levels in order to spur more climate-friendly sustainable development pathways.

Our discussions were complementary and supportive to the UN climate process, underscoring the need for agreement on a strong process to develop a post-2012 framework.

Technology – Realising the potential

We shared the view that the dual challenges of energy and climate security must be simultaneously addressed. Technologies are key to decoupling energy consumption from economic growth.

We reaffirmed that there is a huge potential for emission reductions at low or even negative costs with currently available technologies, especially in the field of energy efficiency. Renewable energy technologies also offer great potential for CO₂- abatement and reduction of fossil fuel dependency. It was observed that a post-2012 regime, including a long-term carbon price signal and policy incentives, will be a main driver for an energy revolution based on efficiency and renewables.

Acknowledging the IEA's recommendations, we stressed the need to implement international and national policies and measures including standards, removal of environmentally harmful subsidies and trade barriers, market incentives and government procurement to accelerate the

commercialisation and deployment of clean energy technologies. We also asked the IEA to report on progress to the Japanese G8 presidency. Increased R&D funding was also supported.

We agreed on the need for enhanced and more targeted innovative technology cooperation, especially between industrialized and developing countries. Speeding up implementation could help leapfrogging in key energy technologies. We need to better understand how to fund and finance the transformation of our energy systems including through innovative mechanisms such as buying down risk.

We noted with appreciation the EU Commission's offer to hold a multilateral meeting for an international initiative in the field of energy efficiency (Platform for International Cooperation on Energy Efficiency).

Follow up:

We invited the IEA and REEEP, REN21, national experts from Dialogue countries and interested stakeholders to explore in more detail the technology potentials in key sectors in Dialogue countries. Analysis will focus on how to ensure economic growth with a lower carbon footprint, including identifying specific innovative mechanisms for technology cooperation. The results will be reported to the Japanese G8 presidency. The analysis should:

- /Focus on energy technologies in the area of efficiency, renewables and carbon capture and storage (CCS).
- /Provide advice for the development of strategies or roadmaps to promote clean energy technology deployment, considering inter alia cost effective domestic policies and measures and the role of international cooperation, geared towards the specific needs of countries

Scaling up investment in climate protection

Drawing on the results of the recent UNFCCC Report on investments and financial flows to address climate change, we recognised the scale of investment needed for effective climate protection from private as well as public sources.

In light of the need to shift future energy investment of \$20 trillion until 2030 to climate friendly development pathways, we supported the advancement of the International Financial Institutions' (IFIs) Clean Energy Development and Investment Frameworks. We noted the need for additional funding and also encouraged the IFIs to engage with the national development banks of G8 countries and continue working with private sector.

We recognised the need for clear and predictable policy frameworks on the national and international levels for attracting private sector investments in more climate friendly development pathways, as the biggest bulk of investments will need to come from private sources. Carbon finance is a necessary tool but will not be sufficient to achieve the needed transformation to reach our energy and climate security goals.

Additional finance will be required through e.g. venture capital as well as forms of public support. IFIs could contribute to financing the additional incremental costs that go along with the shift to a climate friendly energy system, with public finance acting as a catalyst along the way.

We discussed the interest and need for a scaled-up carbon market and identified ways to explore concretely how to match an expanded CDM with national sectoral and technological priorities. Deployment of energy technologies in the area of efficiency, renewables and carbon capture and storage (CCS) must be accelerated.

For scaling up climate-friendly investment, we must demonstrate the potential for enhanced global and national action and support technological change that can simultaneously tackle the intertwined challenges of providing energy access, energy security and climate change.

Follow up:

We invited International Financial Institutions, in cooperation with national experts from Dialogue countries and the private sector, to analyse in depth the international cooperation toolbox, including:

- Expanding and scaling up mechanisms such as the CDM
- Sectoral approaches
- Blended public and private financing

We welcomed the invitation of the UK to host a workshop with IFIs on scaling up mechanisms such as the CDM, including the examination of reform proposals and programmatic and policy approaches, and invited IFIs to report on progress to the Japanese G8 presidency.

We stressed the urgent need for new and innovative approaches to finance adaptation and acknowledged Germany's announcement of a workshop on climate related micro-insurance projects in November 2007.

Policy framework post-2012

We acknowledged the central role of the UN climate process for negotiating future global action on climate change. There was clear support for a comprehensive process to conduct negotiations on flexible and fair post-2012 agreement starting at the UN climate conference in Bali, December 2007, with the aim to reach global agreement in 2009.

We discussed principles and elements of a future regime. There was broad consensus that it should be fair and flexible, based on measurable, verifiable and quantifiable climate protection efforts and on the principle of common, but differentiated responsibilities and respective capabilities. Considering the ultimate objective of the UNFCCC, an integrated approach to climate protection, sustainable development and economic growth is necessary both for developing and industrialised countries. We acknowledged that for effective climate protection a wide range of tools needs to be taken up, considering different national circumstances.

We agreed that enhanced action on mitigation, adaptation, technology and investment is necessary.

- Adaptation should be treated as a high priority issue. We saw the urgent need to scale up efforts and develop innovative instruments to address the inevitable impacts of climate change, especially in those developing countries and regions which are most vulnerable.
- We acknowledged that developed countries must take the lead by committing to deeper absolute emission reductions. We noted that in addition, enhanced action by developing

countries is necessary and stressed the need for positive incentives for such mitigation actions.

- Markets are a powerful tool to deliver the necessary technologies and investment flows for climate protection but will need to be accompanied by additional policies and measures as well as by efforts aimed at building capacity in developing countries.

We agreed on the need to develop a quantified global and long-term climate protection goal in line with environmental requirements. This is also needed to avert private sector uncertainty about the global regime post-2012, which would damage investment. There was strong commitment for the further development of the international regime while it was noted that we should not reinvent the wheel, but build on the existing architecture of the UNFCCC and the Kyoto Protocol.

We shared the view that reducing emissions from deforestation are another important element to be addressed; initiatives to develop innovative mechanisms such as the World Bank's Forest Carbon Partnership Facility were noted with appreciation.

We welcomed the proposals by the Global Leadership for Climate Action and GLOBE with many indicating support for their principles and recommendations for a post- 2012 framework.

Follow up:

We reaffirmed our willingness to actively contribute to a successful outcome of the Bali conference and to secure coherence of the various meetings in this respect.

We invited the G8 presidency to report on the Gleneagles Dialogue at the UN Climate Conference in Bali.

We welcomed the intention of the Japanese Government to host a meeting in the framework of this Dialogue in Chiba (14-16 March 2008), with the view to preparing a report to the G8 summit in Hokkaido.

Gleneagles-Dialogue on Climate Change, Clean Energy and Sustainable Development
4th Ministerial Meeting
Chiba, JAPAN
14-16 March, 2008

Chairs' Conclusions

The Ministerial Meeting of the Dialogue on Climate Change, Clean Energy and Sustainable Development was launched at G8 summit at Gleneagles 2005. The first meeting was held in London in Oct. and Nov. 2005, followed by the second meeting in Monterey in Oct. 2006 and the third meeting in Berlin in Sep. 2007.

During the past sessions of the Dialogue, the following general understandings had been shared, with the assistance of the inputs from the IEA and the World Bank;

- Both the development of new technologies and the deployment of existing technologies are equally important. Cooperation between developed and developing countries, and between public and private sectors are essential.
- Future investment is needed on a large scale. A wide range of policies should be implemented in a clear and predictable way in order to mobilize private investment.
- It is necessary to deal with sustainable development and climate change at the same time. Adaptation and reducing emissions from deforestation are also important.

It had been acknowledged that these discussions during the Dialogues in the past are useful inputs and complementary to the process under the UNFCCC for the post-2012 framework.

In order to wrap up these past 2-year discussions and prepare a report to the G8 Hokkaido Toyako Summit, the 4th meeting was held in Chiba from the 14th to the 16th of March 2008, and focused on the issues on Technology, Finance and Investments, and post-2012 framework.

This meeting was attended by ministers and senior officials responsible for energy and environment issues from G8, from Australia, Brazil, China, India, Indonesia, Korea, Mexico, Nigeria, Poland, South Africa, Spain and Slovenia as current presidency of the EU. We were joined by senior officials from international organizations including the International Energy Agency, the World Bank, Regional Development Banks, and business groups from the World Business Council for Sustainable Development, Nippon Keidanren and the World Economic Forum, non-governmental organizations as well as legislators from the GLOBE.

Regarding the following issues discussed at this Dialogue, we;

Technology

[Energy Efficiency and Clean Energy]

- Acknowledged the importance of improving energy efficiency, as one of the lowest cost and most effective means to immediately reduce GHG emissions, on a global scale including through cooperative sectoral approach, international partnership, and domestic actions for each country.
- Highlighted the necessity of technology deployment and transfer to developing countries.
- Acknowledged the importance of capacity building and discussed the role of IPR

(Intellectual Property Rights).

- Noted that countries which decided to choose the option for nuclear energy recognized the contribution of nuclear power to emission reduction while those which decided otherwise expressed their concern about security.
- Noted the importance of renewable energy.

[Innovative Technology]

- Exchanged information on international initiatives to develop innovative technologies.
- Shared the necessity of expanding and strengthening international cooperation and sharing road maps on technology RD & D.
- Emphasized the importance of CCS.

[Sectoral Approach]

- Provided experiences based on sectoral approach (e.g., APP).
- Discussed the effectiveness of sectoral approach and recognized the necessity to continue further discussion in order to reach common understanding.
- Emphasized the principle of common but differentiated responsibility and respective capability in the context of sectoral approach.

[The Role of the IEA]

- Appreciate the work of IEA and pointed out challenges to be addressed (including data collection and the future role of IEA).

[Activities by Private Sector]

- Appreciated business initiatives for implementation of sector-based activities (including data collection).

Finance

[International Financial Mechanism for Mitigation and Adaptation]

- Appreciated the work of the World Bank and Regional Development Banks under the framework for clean energy and development and encouraged them to continue and enhanced these efforts.
- Appreciated the initiatives by Japan, UK and US to create a new multilateral fund for climate change in collaboration with the World Bank.
- Exchanged views on governance of international funding arrangements.
- Acknowledged to coordinate various existing and new funds in order to avoid duplication.
- Recognized the need to prioritize financial support for adaptation to the most vulnerable countries such as Least Developed Countries and Small Islands Developing States.
- Noted the importance of exploring innovative financial mechanisms.
- Noted a Multinational Fund for Climate Change to support mitigation and adaptation activities proposed by Mexico.
- Noted the necessity of scaling up CDM while recognizing the need for improvement.
- Acknowledged the importance of mainstreaming mitigation and adaptation into development policy.
- Recognized the importance of maximizing co-benefits (e.g. air pollution reduction) in financial assistance.

- Reaffirmed the necessity to give appropriate incentives for preventing deforestation and forest degradation.

[Mobilization of Private Investment]

- Recognized the importance of mobilization of private investment and the role of governments to remove the obstacles for investment.
- Discussed the relationship between carbon markets and private investments.

Post-2012 Framework

[Long-term Goal]

- Acknowledged the importance of sharing a long-term goal.
- Shared the common understanding of the necessity to move toward sustainable low-carbon societies.
- Pointed out the necessity to identify a long-term policy which functions as a reliable and clear signal to the private sector.

[Mid-term Goal]

- Reaffirmed the principle of common but differentiated responsibilities and respective capabilities as a premise of the discussion.
- Noted the necessity to take into consideration the change of global situation from 1992 to 2008.
- Recognized the necessity to ensure equity to realize sustainable development and effective emission reduction.
- Shared the necessity to continue substantial discussion on sectoral approach, with the understanding that it does not replace quantified national target for GHGs emissions reductions.

[Global Actions]

- Noted developed countries will take the lead in combating climate change while ensuring the comparability of efforts among them.
- Acknowledged developing countries will take measurable, reportable and verifiable actions with support from developed countries.
- Shared that adaptation and mitigation are equally important, and technology and finance are necessary ways to achieve them.
- Recognized in particular the unique role that the countries at the Gleneagles Dialogue can play in terms of initiatives and cooperation leading to emission reduction.
- Noted the importance of carbon market role.
- Acknowledged the importance of counter measures for deforestation and forest degradation particularly for developing countries.

[Road to Copenhagen]

- Appreciated the fruits of this dialogue (substantial contribution to the agreement on Bali Action Plan) and expected it to become a useful contribution to the discussion in the AWGLCA under the Convention.
- Highlighted the value of this dialogue and other such dialogues in contributing to a successful outcome in Copenhagen.