Key points and recommendations

- Carbon markets and the Clean Development Mechanism will not deliver the financial flows necessary to meet all climate change mitigation and adaptation needs. It is therefore important to explore other sources of finance.

- Strong, stable, transparent, coherent and credible long-term national policies are the key for catalysing private sector investment in renewable energy and low carbon technologies in developing countries. They are the essential foundation upon which all else is built.

- Investors would welcome an international system that registers, oversees and reviews national climate change action plans, and offers support and advice to developing countries on the design and implementation of effective policies. This would give investors greater confidence that national policies are long-term and linked to international legal frameworks.

- Efforts to secure an attractive environment for foreign investment in a general sense are critical to stimulating climate-related investment in emerging markets by developed country private sector institutions. Good governance, transparent and trustworthy legal systems, appropriate tax regimes, import policies, regulations on the repatriation of investment earnings, etc., will all be important.

- Multilateral and bilateral development finance institutions could establish mechanisms whereby private sector institutions from both developed and developing countries could access packages of support to allow the establishment of large-scale infrastructure or private equity funds investing in climate change mitigation. The support mechanisms used could draw on existing and emerging experience of using various debt and equity mechanisms, backed up by targeted export credit guarantees and political risk insurance (e.g. against policy change). Crucially, support will need to be available to funds, not just individual projects. These packages should be available to groups of pension funds or other end-investors, or fund managers who structure funds and raise finance from end-investors. Many of these mechanisms are not new. They need to be coordinated and targeted to climate change.

The finance provided and leveraged through these mechanisms will need to be coordinated and recorded in order for it to be monitorable, reportable and verifiable under a post-Kyoto agreement.

- A number of proposals have been made for bonds guaranteed by OECD country governments to be issued to private sector investors to generate funds for climate change activities. In principle, bonds guaranteed by OECD governments offer an attractive way to raise large sums from capital markets for climate financing. However, it will not be possible to raise significant sums unless the risk-return characteristics of ‘climate bonds’ are competitive with those of ‘normal’ bonds. Investors in climate bonds will be concerned to ensure that proceeds generate tangible climate benefits and do not undermine other sustainable development objectives.
1. Introduction

Very substantial volumes of new financing will be required to bring about a transition to a low-carbon economy and to support climate change adaptation. While expanded markets can be expected to generate substantial financial flows, financing over and above this will be required. This paper briefly explores what mechanisms could be used to generate such finance.

Climate change mitigation has attracted large-scale investment in developed countries. Europe alone has seen over €100 billion in investment in renewable energy technologies over the last 10 years. Despite the credit crisis end investors (such as pension funds) are still investing in renewable energy and energy efficiency. New investment funds continue be developed by banks, private equity houses, specialist project developers and others and offered to institutional investors such as pension funds and sovereign wealth funds. These can be attractive, for example, to pension funds that have allocated a proportion of their portfolio to infrastructure or private equity. The conditions under which such investment is attractive to large investors in terms of risk and return are well understood. Sections 2 and 3 below outline what needs to be done to enable and encourage the private sector to invest on a significantly larger scale in climate change mitigation in developing countries.

It is still much less clear how the developing world’s enormous need for finance for climate change adaptation can be translated on a large scale into investment opportunities that generate returns that are attractive to institutional investors. While it is reasonable to envisage large-scale private sector investment in mitigation in developing countries if policy frameworks and other conditions are right, it is likely that adaptation will have to be financed primarily by the public sector for the foreseeable future. Mechanisms for raising funds from the private sector to finance investment in climate change adaptation by the public sector are discussed in Section 4.

2. National policy is paramount

Climate change policy

The single most significant driver of private sector investment in renewable energy and other low-carbon technology is strong, stable, transparent and credible national policy. The EU framework of greenhouse gas emission reduction targets, a cap-and-trade system and incentives for renewable energy in the form of feed-in tariffs and other mechanisms, have stimulated large-scale investment. Institutional investors such as pension funds are offered a steady stream of investment opportunities in renewable energy in the EU.

A similar flow of opportunities is starting to develop in some of the largest emerging markets. Investments already being made by IIGCC members include energy efficiency and biomass power generation in China, ethanol production in Thailand, renewable energy in India and jatropha production in Argentina, Brazil, Indonesia and Malaysia.

National climate change policies and action plans in countries such as China and India are helping to stimulate investor confidence. But many investors still perceive emerging markets to be high-risk. Investors are wary that policy may change unpredictably – that emission reduction targets may be weakened or incentives for renewables removed. This concern could be allayed by mechanisms to link national action plans to an international framework that reduces the likelihood of policy being reversed. Investors would therefore welcome an international system that registers, oversees and reviews national action plans, and offers support and advice to developing countries on the design and implementation of effective policies.

The wider investment environment

The broad investment environment is a key determinant of investors’ willingness to invest in developing countries. Factors such as the stability and transparency of the rule of law in a general sense, standards of corporate governance, import tariffs, restrictions on the repatriation of investment returns and the enforceability of contracts are every bit as important as a country’s climate change policy in shaping investors’ appetite to invest.
3. Public sector incentives

Multilateral and bilateral development institutions and specialist agencies from many developed countries have vast experience of using public funds to catalyze private sector investment in climate change-related activities. UNEP’s experience with a number of different models of public financing mechanisms (PFMs) shows leverage ratios range from 3 to 15 are achieved. In other words for every $1 of public money deployed, between $3 and $15 of private investment can be generated. Based on this assessment, a concerted programme of PFMs were scaled up, $10 billion in public funds could leverage $50-150 billion in total investment in climate mitigation.

The mechanisms used include:

- **Credit lines** to local commercial financial institutions (CFI) for providing both senior and mezzanine debt to projects;
- **Guarantees** to share with local CFIs the commercial credit risks of lending to projects and companies;
- **Debt financing** of projects by entities other than CFIs;
- **Private equity (PE) funds** investing risk capital in companies and projects;
- **Venture capital (VC) funds** investing risk capital in technology innovations,
- **Carbon finance** facilities that monetize the advanced sale of emissions reductions to finance project investment costs;
- **Grants** and contingent grants to share project development costs, and
- **Technical assistance** to build the capacity of all actors along the financing chain.

Another promising mechanism under review is using public funds to seed private sector renewable energy funds. The public sector funds would be used to absorb losses up to a specified level, thereby reducing risk for private sector investors. If no losses are sustained, the public investment will generate a return that can be re-invested in further climate mitigation activities.

To reduce risk further, enhanced export credit guarantees and political risk insurance could be provided for climate-related investment.

Multilateral and bilateral development finance institutions could establish mechanisms whereby private sector institutions from both developed and developing countries could access packages of support to allow the establishment of large-scale infrastructure or private equity funds investing in climate change mitigation. The support mechanisms used could draw on existing and emerging experience of using various debt and equity mechanisms, backed up by targeted export credit guarantees and political risk insurance (e.g. against policy change). Crucially, support will need to be available to funds, not just individual projects. Most institutional investors such as pension fund invest in funds rather than individual projects. They need certainty that potential losses will be mitigated at the fund level, and that sufficient numbers of attractive deals will be available to the fund.

These packages should be available to groups of pension funds or other end-investors, or fund managers who structure funds and raise finance from end-investors. Many of these mechanisms are not new. They need to be coordinated and targeted to climate change.

The finance provided and leveraged through these mechanisms will need to be coordinated and recorded in order for it to be monitorable, reportable and verifiable under a post-Kyoto agreement.

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1 This section draws heavily on *Public Finance Mechanisms to Mobilise Investment in Climate Change Mitigation* – UNEP 2008.
4. Raising public funds from the private sector

A number of proposals have been made for bonds guaranteed by OECD country governments to be issued to private sector investors to generate funds for climate change activities. The European Commission’s January 2009 Communication Towards a comprehensive climate change agreement in Copenhagen proposes a Global Climate Financing Mechanism financed by bond issuance. In the UK, the Prince of Wales’ Rainforest Project has proposed that the World Bank could issue government-backed bonds to finance forest conservation. This would serve as a bridge to the introduction of an international REDD framework that would generate large-scale funds for forest conservation via carbon markets.

Experience with the International Finance Facility for Immunisation demonstrates that bonds whose proceeds are dedicated to a specific public policy purpose can be designed in such a way that they are attractive to institutional investors. Governments should draw on this experience in designing climate bonds.

The willingness of institutional investors to buy ‘climate bonds’ will be determined by the bonds’ risk-return characteristics. Individual institutions will have different requirements, depending on the particular nature of their portfolios or the liabilities they need to match. A small number of institutional investors may be prepared to accept lower returns or higher risk from ‘climate bonds’ than would normally be tolerated. There may also be an appetite in the retail investment market for bonds designed on this basis. However, it will not be possible to raise the large sums required for climate finance unless risk-return characteristics are competitive with those of ‘normal’ bonds. It is a well-founded adage in the capital markets that what investors are most likely to buy is something that is the same as what they bought yesterday. Key issues include:

- Yields need to be competitive with other government bonds
- Bonds need to be liquid, to allow institutional investors to sell easily
- The larger the number of governments involved in guaranteeing an individual issue, the higher the spread investors will look for.

Investors in climate bonds will also take a close interest in how bond proceeds are used. It is to be assumed that bonds will be marketed explicitly on the basis that proceeds will be used to support climate change adaptation or mitigation. Investors will therefore expect credible evidence that tangible climate benefits will be delivered. This will include evidence that spending priorities are in line with national climate action plans in developing countries; that the institutional arrangements through which proceeds will be spent are robust and legitimate in the eyes of a broad range of stakeholders; and that climate-related spending does not undermine other sustainable development objectives (e.g. biodiversity conservation or local community development).

2 http://ec.europa.eu/environment/climat/future_action.htm
About the Institutional Investors Group on Climate Change (IIGCC)

The Institutional Investors Group on Climate Change (IIGCC) is a forum for collaboration on climate change for European investors. The group’s objective is to catalyse greater investment in a low carbon economy by bringing investors together to use their collective influence with companies, policymakers and investors. The group currently has 52 members, representing assets of around €4trillion.

In detail, the IIGCC’s objectives are to: 1. encourage a pro-active approach amongst asset owners and asset managers on climate change; 2. improve company disclosure/performance on climate change; 3. encourage public policy solutions that ensure a move to a low carbon economy and which are consistent with long-term investment objectives.

IIGCC Membership, May 2009

APG Asset Management
ATP
Aviva Investors
Baptist Union of Great Britain*
BBC Pension Trust
Bedfordshire Pension Fund
BlackRock
BMS World Mission*
BNP Paribas Investment Partners
CB Richard Ellis Investors
CCLA Investment Management
Central Finance Board of the Methodist Church
Church Commissioners for England
Climate Change Capital
Co-operative Asset Management
Corporation of London Pension Fund
Cowen Asset Management
Credit Agricole Asset Management
DWS Investments
Environment Agency Pension Fund
Ethos Foundation
F&C Management Ltd
Generation Investment Management LLP
Greater Manchester Pension Fund
Grosvener Fund Management
Henderson Global Investors

Hermes
HgCapital
HSBC Investments
Impax Asset Management
Insight Investment
Joseph Rowntree Charitable Trust*
Kent County Council Pension Fund
London Borough of Hounslow Pension Fund
London Borough of Islington Pension Fund
London Borough of Newham Pension Fund
London Pensions Fund Authority
Merseyside Pension Fund
Northern Trust
PGGM Investments
PRUPIM
Schroders
South Yorkshire Pensions Authority
The Church in Wales*
The Roman Catholic Diocese of Plymouth*
The Roman Catholic Diocese of Portsmouth*
The Roman Catholic Diocese of Salford*
United Reformed Church*
Universities Superannuation Scheme
West Midlands Metropolitan Authorities Pension Fund
West Yorkshire Pension Fund
William Leech Charitable Trust*

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