

Climate Change and Foreign Policy

**An exploration of options for
greater integration**



John Drexhage, Deborah Murphy, Oli Brown, Aaron Cosbey, Peter Dickey,
Jo-Ellen Parry and John Van Ham (International Institute for Sustainable Development)
and
Richard Tarasofsky and Beverley Darkin (Chatham House)

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Foreword

Climate Change and Foreign Policy: An exploration of options for greater integration reflects a change in strategic thinking. It presents a series of recommendations on how foreign policy can help to foster international cooperation on climate change action. This opens up a broad array of new opportunities, because climate change is intimately connected with a wider social, economic and geopolitical agenda.

The message of this report is clear: an integrated climate change–foreign policy approach has the potential to improve prospects for more effective efforts to address climate change at the national and international level. Looking at the key foreign policy areas of the Ministry of Foreign Affairs of Denmark, we identified a number of opportunities to advance climate change objectives. The areas of diplomacy and foreign relations, energy security, peace and security, trade and investment and development cooperation all involve domestic and international policies that could fundamentally alter the ability and willingness of nations and the international community to meet the challenges of climate change.

This research represents IISD’s first major attempt to position climate change in the broader foreign policy context. It has been a useful exercise from IISD’s perspective, allowing us to bring together experts from our Trade and Investment; Security; and our Climate Change and Energy groups. In the process, we developed a greater sensitivity to the range of options available that would tackle climate change more effectively by involving a wider and more influential constituency.

I would like to thank the IISD team for their work and for the quality of their efforts—in particular, John Drexhage, Deborah Murphy, Oli Brown, Aaron Cosbey, Peter Dickey, Jo-Ellen Parry and John Van Ham. I would also like to thank Chatham House, in particular Richard Tarasofsky and Beverley Darkin, who led the analysis on international diplomacy and relations, and provided input on the report as a whole.

IISD believes that this research is only a first step in bringing these complex issues together. We are keen to continue our work in this area; in particular, by examining linkages between climate change and economic development plans and programs in developed countries, and furthering analysis in specific areas of foreign policy, such as trade and investment, and security. The results of this work could provide valuable inputs for climate change policy at the national and global levels.

I would like to thank the Ministry of Foreign Affairs of Denmark who funded this exercise. The publication is the latest in a series we have produced in cooperation with the Ministry examining some of the major challenges facing sustainable development. The earlier titles—*Global Environmental Governance: A Reform Agenda* and *Environment and Globalization: Five Propositions*—are available for download at <http://www.iisd.org/publications>.

David Runnalls
President and Chief Executive Officer
International Institute for Sustainable Development

Preface

Climate Change and Foreign Policy

Climate change is one of the biggest challenges of this century. It is a global challenge that calls for global solutions. There is a need to think out of the box. Business as usual is no longer adequate. Foreign policy must do its part.

The threat of climate change is not only global. It is also multidimensional, invisible, unpredictable, and transcends national borders. Traditional strategies and alliances are becoming ineffective against climate change, when the cause (greenhouse gas emissions) is not the result of a “hostile” enemy. Addressing the challenges posed by climate change along with threats such as terrorism, poverty and conflicts calls for new thinking in foreign policy.

It is against this background that the Danish Foreign Ministry has called on the International Institute for Sustainable Development to carry out a research study on the role of foreign policy in fostering a more effective international response to the challenge of climate change. The scope of the study has been to look at instruments that are relevant to Danish foreign policy.

First, the study has highlighted a number of areas where foreign policy can further the climate change agenda in diplomacy and foreign relations within the European Union, transatlantic relations, Arctic issues and United Nations affairs. This includes better integration of climate change into the EU’s Common Foreign and Security Policy, the Lisbon Agenda, and incorporating climate change in the work of a wide range of bodies under the United Nations.

Second, given the increasing political priority to energy security, the study points to how the promotion of climate-friendly energy solutions and adequate and reliable supplies of energy should be addressed in tandem in a broad foreign policy context. Given Denmark’s position in the fields of renewable energy and energy efficiency, the study points out the potential for a reinforced role of Danish private-public partnerships in this regard.

The study, thirdly, identifies peace and security issues related to climate change and how foreign policy could play a role in addressing them. A major challenge is that the threat feels abstract and the measures are poorly defined. While climate change may not be the sole cause of a conflict, climate-induced environmental stress may worsen local and regional tensions over scarce natural resources and increase the number of refugees from countries suffering from the consequences of climate change.

Fourth, with regard to trade and investment, the study identifies how foreign policy could influence the inclination of nations to engage in international climate change efforts, how climate change efforts may benefit from screening of outcomes of WTO negotiations, and how improved standards for climate change could be used for the screening of export credit projects.

Finally, the study emphasises how development cooperation can provide the means to help developing countries deal with climate change within the framework of national development goals and the Millennium Development Goals. While the role of development cooperation in high-emitting developing countries is limited, development assistance, according to the study, has a particularly important role in assisting Least Developed Countries adapt to the negative impacts of climate change.

Within these foreign policy domains, the study has identified a number of opportunities for addressing climate change. In doing so, the study suggests that integrating climate change into foreign policy could enhance the ability and willingness of nations and the international community to meet the challenges of climate change.

I want to thank the International Institute for Sustainable Development for having contributed with innovative and timely thinking on how foreign services can play a stronger role in the fight against climate change. In particular, I want to thank the President and CEO of the Institute, David Runnalls, and the Director of the Institute's Climate Change and Energy Program, John Drexhage, and the team working with them on this important task. I hope that the study will give inspiration to the foreign policy community and beyond in the efforts to strengthen the international response to climate change.

Ib Petersen
State Secretary, Ambassador
Ministry of Foreign Affairs
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Abbreviations and Acronyms

ACIA	Arctic Climate Impact Assessment
AOSIS	Association of Small Island States
AP-6	Asia Pacific Partnership on Clean Development and Climate
AWG	Ad Hoc Working Group
CBD	Convention on Biological Diversity
CCS	carbon dioxide capture and storage
CDM	Clean Development Mechanism
CEC	Commission of the European Communities
CFSP	Common Foreign and Security Policy
CO ₂	carbon dioxide
CO _{2e}	carbon dioxide equivalent
COP	Conference of the Parties
CSD	Commission for Sustainable Development
EC	European Commission
ECA	Export Credit Agency
EEA	European Environment Agency
EPA	Economic Partnership Agreement
ETS	Emissions Trading Scheme
EU	European Union
FAO	Food and Agriculture Organization
FDI	foreign direct investment
G8	Group of Eight Industrialized Countries
GAERC	General Affairs and External Relations Council
GEF	Global Environment Facility
GHG	greenhouse gas
GMEF	Global Ministerial Environment Forum
IEA	International Energy Agency
IFI	international financial institution
IPCC	Intergovernmental Panel on Climate Change
LDC	least developed country
MDGs	Millennium Development Goals
MEA	multilateral environmental agreement
MOP	Meeting of the Parties
NATO	North Atlantic Treaty Organization
ODA	official development assistance
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
ppm	parts per million
R&D	research and development
REEEP	Renewable Energy and Energy Efficiency Partnership
SIDS	small island developing state
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
U.K.	United Kingdom
U.S.	United States
WHO	World Health Organization
WTO	World Trade Organization

Executive Summary

This report explores ways in which an integrated climate change-foreign policy approach might improve prospects for a more effective global climate change regime. Such a regime would cover actions to mitigate or adapt to climate change in the near and long term and be characterized by an international agreement that would see wide global participation following the 2012 expiration of the Kyoto Protocol. This is important because climate change is not just an environmental issue, being connected to fundamental social, economic and geopolitical issues. Many decisions of critical importance for the global climate and for an effective transition to a low-carbon economy will take place outside the climate policy community, in the fields of energy, security, trade and investment, and development cooperation. A broader framing of the challenges of climate change may reveal new opportunities to align goals across policy areas, and bring a wider constituency and greater effectiveness to efforts to tackle the problem. Key foreign policy areas and recommendations for each area are summarized below.

International Diplomacy and Relations

Opportunities are presented by international diplomacy and relations to further climate change objectives in regard to the European Union, transatlantic relations, the Arctic and the United Nations system. The EU is well placed to respond to the four areas that are pre-conditions to tackling climate change: an effective multilateral system; a coherent approach to foreign policy-making; integration with trade and economic policy; and integration with development assistance. In order to do this, strong political leadership and strategic engagement is required across the full range of EU decision-making. Denmark has a close relationship with the United States, strategically and geographically. Yet under the existing world order, the leverage that individual EU Member States have with the United States is limited, and it is necessary for EU nations to act collectively to increase their influence. The Arctic is, in many ways, on the front line of climate change impacts, and there are a number of treaties and institutions, as well as non-governmental initiatives, that could be used to further action on climate change. An effective multilateral response to climate change can be encouraged through enhanced effectiveness of the UN system, to allow UN organizations the capacity to respond effectively to the global challenge of climate change.

Key Recommendations: At the level of the EU, consider engagement on climate change not only in the sphere of environment, but also outside of the envi-

ronment “box,” and remove the limits to climate policy imposed through other policies, such as energy or trade. This will require EU leaders to engage at a much more strategic level on climate change than at present. In regard to transatlantic relations, encourage “triangulation” to provide the opportunity for the EU and U.S. to engage with emerging economies (such as China) and third countries in the developing world. For the Arctic, identify opportunities for dialogue between Arctic countries on a range of issues, such as through the Northern Dimension, Arctic Council and International Polar Year. Within the UN system, awareness of climate change as a cross-cutting issue could be enhanced by encouraging that climate change be included as an item on the agendas of the Environment Management Group, the UN Development Group and the Global Ministerial Environment Forum (GMEF).

Energy Security and Investment

Energy security and investment issues are becoming a top priority at the national and international level, and will remain so as long as current international geopolitical uncertainties continue to fester and the resource requirements of emerging powers, such as India and China, continue to grow. Actions taken on climate and energy security are often not fully integrated and are seldom pursued with a sufficient level of urgency.

Key Recommendations: Promote the idea that climate-friendly actions will work to enhance energy supply issues, and champion this message internationally. Reinforce this message by advancing actions that will help achieve energy security and climate objectives through partnerships in the areas of clean energy approaches, renewable energy and energy efficiency. This is particularly important in energy-importing countries, such as China, which are seeking inputs to address their energy supply situation. For energy exporting countries, increase efforts to improve market access and promote liberalization to help energy producers diversify their economies and improve non-energy investments.

International Peace and Security

Fundamentally, climate change threatens to undermine governments’ ability to ensure security and stability. While most of the scientific data are not disputed, climate change still appears low on a list of foreign policy priorities, in part because the threat feels abstract and response measures are too often poorly defined and communicated. The “security link” conveys added, and arguably necessary, gravitas to the debate on climate change; and an appreciation of the security implications of climate change could give new impetus to the climate change agenda.

Key Recommendations: Use Denmark's position in multilateral fora, especially in the UN system, to try to get anthropogenic climate change recognized as a threat to international peace and security. Incorporate climate change considerations into risk assessments of Denmark's foreign policy, security and development priorities.

Trade and Investment

There are three main issues when considering how trade and investment policy objectives might influence the ability and inclination of nations—particularly developing countries—to collaborate on effective climate change efforts in a post-2012 context: (1) trade and investment liberalization, carried out properly, can provide the means, and the necessary goodwill, for developing countries to address mitigation and adaptation; (2) trade and investment rules can act as aids or obstacles to climate change efforts; and (3) trade and investment relations can constitute a platform for wider cooperation.

Key Recommendations: Exert pressure to tone down the somewhat aggressive EU calls for reciprocal concessions by developing countries in trade negotiations, and in the ongoing Economic Partnership Agreement (EPA) negotiations. Explicitly incorporate climate change elements in any aid-for-trade and/or trade facilitation efforts supported by Denmark. Establish a screening mechanism of the various potential World Trade Organization (WTO) and EPA outcomes from a sustainable development viewpoint, using the *Sustainability Impact Assessments* process as a base. Propose an EU WTO submission outlining the importance to climate change efforts of a successful outcome in the various negotiating areas. Working from the model of negotiation that helped bring about Russian ratification of the Kyoto Protocol, engage in strategic bilateral talks with those developing countries that are key to both the Doha and post-2012 negotiations, looking for cross-issue agreements that might foster progress.

Development Cooperation

While there are a number of ways in which development cooperation policy might influence the ability and inclination of developing nations to collaborate on effective climate change efforts, it must be recognized that the leverage of official development assistance (ODA) is marginal, particularly in regard to high-emitting developing countries. Hence, there is limited scope for providing financing in return for reduction commitments by these countries in a post-2012 climate change agreement. ODA is, however, an importance source of financing for many other developing countries, and might be used to address climate change needs if properly linked with national development priorities.

Key Recommendations: Encourage the mainstreaming of climate change and adaptation in development programming with partner countries and in international financial institutions (IFIs), UN organizations and global programs, using lessons learned from the Denmark “climate proofing” experience. Use ODA to address the varying needs of developing countries (i.e., specific and different actions for least developed countries and high-emitting countries). In regard to Export Crediting Agencies (ECAs), encourage finance ministries and foreign ministries responsible for international negotiations to enter the debate on improved standards for climate change issues.

Diplomatic Networking

No change is possible unless there is institutional buy-in within the foreign policy community. This requires senior managers within Foreign Ministries to set the direction and provide a focal point within their institutions for pushing the agenda forward. Beyond that, ongoing political engagement, a diplomatic network willing to deliver and a coherent cross-government approach are the three most important elements needed to achieve climate change objectives.

1. Introduction

There is an increasing realization within the international community that achieving the consensus and commitment needed to take stronger action on climate change, with all major emitting countries participating in the solution, requires positioning climate change in a broader policy context. The climate change negotiations do not take place in isolation from other developments on the global agenda, and actions in other areas of foreign policy will have impacts on climate change and influence negotiations in the climate change sphere.

The ostensible goal of Western foreign policy is to provide stability and security as a foundation for human well-being, global freedom and prosperity. However, in today's increasingly inter-connected world, the traditional instruments of diplomacy are no longer always helpful in tackling global threats. Traditional alliances struggle to act effectively against a threat, such as climate change, when the cause (greenhouse gas (GHG) emissions) is not the ambition of any one "hostile" power. A new foreign policy is required to effectively tackle issues that transcend national frontiers and are more diverse, less visible and less predictable in nature.

At the same time, the milieu of international diplomacy and foreign relations is dynamic, offering new opportunities for negotiating agreements that can meet foreign policy objectives and deepen commitments to tackle the global threat of climate change. To tackle climate change effectively requires a number of pre-conditions that cannot be met purely through the pursuit of environmental goals, such as:

- an effective multilateral system, a strong international society, well-functioning international institutions and a rules-based international order;
- a coherent approach to foreign policy-making to promote strong collective action;
- integration of climate change into trade and economic policy, so that trade and investment regimes do not point relentlessly towards ever-increasing emissions, but rather create incentives for low-carbon investment; and
- incorporation of climate change measures into ambitious development assistance, including adaptation.

The purpose of this paper is to identify the opportunities presented by foreign policy to further climate change objectives. This is important because climate change is not just an environmental issue, but one intimately connected with a wider social, economic and geopolitical agenda. Many of the decisions critical for the global climate and effective transition to a low-carbon economy will take place outside the climate policy community in the fields of energy, security, trade and investment, and development cooperation. By re-framing climate change and seeking opportunities for alignment of goals, it may be possible to create greater traction in order to tackle the problem more effectively.

This report addresses how conducting a more climate-sensitive foreign policy might improve prospects for a more effective global effort to address the challenge of climate change, including actions to mitigate or adapt to climate change in the near and long term and reaching a broad international post-2012 agreement. A number of foreign policy areas—diplomacy and foreign relations, energy security, peace and security initiatives, trade and investment, and development cooperation—involve domestic and international policies and decisions that could fundamentally alter (for better or for worse) the ability and willingness of nations and the international community to meet the challenges of climate change. The paper concludes with a review of options through which new dynamics might be brought into the climate change process. It is important to note that the report is an initial exercise in a challenging area; to further develop these options will require entering into a dialogue with relevant actors in the identified areas to ensure the recommendations made in this paper are feasible and workable.

2. The Climate Change Challenge

Climate change is one of the greatest global challenges of the 21st century, and increasing evidence of present and anticipated impacts of climate change highlight the need for action. The IPCC's Third Assessment Report noted that the Earth's average surface temperature increased $0.6 \pm 0.2^\circ\text{C}$ in the 20th century.¹ This trend is expected to persist, with an increase of 1.4 to 5.8°C by 2100. Even with "best case" mitigation efforts, some climate change cannot be avoided due to the inertia of the global climate system. Warming will vary by region and be accompanied by significant changes in precipitation patterns as well as changes in the frequency and intensity of some extreme events. Average global sea levels are projected to rise between nine and 88 cm by 2100, with implications for the 50 to 70 per cent of the world's population currently living in low-lying coastal areas.² The probability of large-scale and irreversible impacts, such as the collapse of the Greenland Ice Sheet and the slowing (or shutting down) of the Atlantic Ocean conveyor belt, is expected to increase with the rate, magnitude and duration of climate change.³

A number of climate records have been set recently, with most climatologists pointing to climate change as a significant factor:

- record temperatures were recorded in the July 2006 heat wave in Europe;⁴
- five of the last 10 years have set records as the warmest ever (1998, 2002, 2003, 2004 and 2005). 2005 was the warmest year on record;⁵
- there were 15 hurricanes in 2005 surpassing the previous record of 12, the most Category Five storms and the most hurricane damage ever;⁶ and
- a record low for Arctic sea ice was recorded in June 2004—six per cent below average.⁷

Changes in temperature and precipitation patterns have already impacted natural and human systems. Observed changes include *inter alia* shrinking glaciers; thawing permafrost; later freezing and earlier break-up of ice on rivers and lakes; rising sea levels; extended mid-to-high-latitude growing seasons; poleward and altitudinal shifts of plant and animal ranges; and declines of some plant and animal populations.⁸ Documented impacts also include the spread of disease vectors including malaria; the destruction of coral reefs from warmer seas and extreme weather events; and threats to low-lying island states.⁹

The provision of ecosystem goods and services will be disrupted with coastlines and mountaintops more susceptible to irreversible losses. Projected cli-

mate change is expected to increase agricultural production in industrialized countries, while developing countries will face a decrease in agricultural land, potential cereal production and food security. More people will become water-stressed as hydrologic variability affects water quality and supply.

In addition to altering biophysical systems, climate change will affect human health and socio-economic well-being. Recent increases in floods and droughts have already led to corresponding increases in damages and insurance impacts.¹⁰ In the future, even modest levels of warming are expected to increase the risks of hunger and disease.¹¹

Although climate change impacts will affect all countries, the poor, primarily but by no means exclusively in developing countries, will be disproportionately affected. Their reliance on local ecological resources, coupled with existing stresses on health and well-being (e.g., HIV/AIDS, illiteracy) and limited financial, institutional and human resources leave the poor most vulnerable and least able to adapt to the impacts of climate change. Consequently, there is growing recognition that climate change may undermine the ability of developing countries to meet the targets put forth in the Millennium Development Goals (MDGs). Most ironically, the vast majority of those most vulnerable to the impacts of climate change are also the least responsible for contributing to it in the form of GHG emissions—whether the indigenous in Northern communities, the subsistence farmer in Sub-Saharan Africa or the small island dweller in the South Pacific.

Nor should we be oblivious to the possible opportunities that may present themselves under climate change scenarios. Changes in temperature and precipitation regimes might make it possible to grow food crops in new locations, potentially contributing to increased food security. In the Arctic regions, warmer winters and ocean waters could lengthen the summer ice-free season, creating economic opportunities for Northern communities (while simultaneously raising concerns about potential ramifications for Northern ecosystems and traditional ways of life). As the process of global warming continues, it will be important to identify, assess and take advantage of new opportunities as they emerge.

Countries are only beginning to grapple with the reality of rising GHG emissions, and a number of processes at the multilateral level offer opportunity to implement strategies to allow countries to engage in dialogue and take action on climate change. (Prominent multilateral initiatives are outlined in the Appendix.) Yet, the threat posed by climate change indicates that decisions and actions will need to go beyond environmental policy and be addressed on a number of fronts.

3. International Diplomacy and Relations

The purpose of this section is to identify the opportunities presented by international diplomacy and relations to further climate change objectives in regard to the European Union, transatlantic relations, the Arctic and the UN system.

3.1 The Role of the European Union

The EU is well placed to respond to the four pre-conditions to tackling climate change: an effective multilateral system; a coherent approach to foreign policy-making; integration with trade and economic policy; and integration with development assistance. The EU, as the pioneer of the carbon-constrained economy, has the potential to lead the world in the transformation from a high-carbon to a low-carbon global economy. In order to do this, strong political leadership and strategic engagement is required across the full range of EU decision-making.

Leadership has been demonstrated, with the Council of the EU calling for developed countries to reduce emissions in the order of 15 to 30 per cent by 2020, and the EU Environment Council and the European Parliament advocating further reductions of 60 to 80 per cent by 2050.¹² The EU Emissions Trading Scheme (ETS) was launched in 2005 and the EU has taken an active role in the post-Montreal dialogue on long-term action. Climate change has been identified as a key challenge and area for integration in the EU's renewed sustainable development strategy, energy policy and its action plan on climate change in the context of development cooperation.

Yet, these efforts need to be strengthened to deliver measurable benefits. A recent report by the Dutch Scientific Council for Government Policy points to weaknesses in European policies to address climate change, noting that current policy “has not proved effective, either in the EU or globally.”¹³ The international coordination of emission reductions efforts is problematic, exacerbated by different countries with widely diverging interests. The integration of climate change into foreign policy goals, opportunities for which are discussed below, might help to overcome some of these weaknesses.

3.1.1 Opportunities for Integration

The EU budget

The priorities of an entity can be determined by how it spends its money. Political and policy commitments have to be matched by financial backing if they are to be taken seriously. If EU leaders were given a blank sheet of paper and asked to construct the European budget from scratch, they would prioritize spending according to today's not yesterday's problems. Clearly, history and politics make this type of wholesale change impossible, but there is still scope for the budget review to tackle climate change as one of the most urgent threats we face. The mid-term budget review was agreed at the December 2005 Council and is scheduled again for 2008–2009. The integration of climate change could be achieved through the mid-term review by refocusing internal policies, such as the agriculture and rural development budget; structural funds; and research and development (R&D) funding; as well as external policies such as the EU external relations policy; development assistance; and a trade agenda that includes climate and energy security objectives. It is important that internal as well as external policies are tackled because the EU can only act as a leader on climate change internationally if it is also effectively achieving its climate change goals internally.

External relations

Trade, development and human rights are all included as part of the EU's external policy. Climate change is not. According to Van Schaik and Egenhofer: "The transfer [of climate change decision-making] from the 'environment track' to the 'foreign affairs track' could offer an opportunity to provide a more strategic perspective to the way the EU negotiates and to incorporate related external policies and foreign policy aspects."¹⁴ This strategic perspective is important. The transformation to a low-carbon economy within a generation requires changes that are not merely technical (such as switching to a different type of technology), but fundamental. It will require climate change becoming an integral part of a broader energy debate; substantial changes in investment patterns so that climate change is properly accounted for; and rapid acceleration of clean energy markets. These are geopolitical and strategic decisions, not environmental ones.

Integrating climate change into EU decision-making on external relations policy could be carried out in critical ways. The first is an institutional response, which would move climate change to the agenda of the General Affairs and External Relations Council (GAERC), which deals with issues such as European security and defence policy, foreign policy, trade and development cooperation, from the Environment Council where it currently sits. But that,

in itself, will not be enough to ensure full integration of climate change into decision-making. A second, more political response would be for Ministers to decide to incorporate climate change into specific external relations policies. One obvious candidate is the *Common Foreign and Security Policy* (CFSP) which is designed to improve coherence in the approach to foreign policy issues across the EU, enable the EU to speak with “one voice” on world affairs, as well as promote international cooperation and development of the rule of law. So far, common strategies have been produced under the CFSP for regional affairs (e.g., the Middle East), but to a lesser degree for global issues, let alone climate change. The third area to explore is the development of strategic partnerships, particularly between the EU and the emerging economies, in a way that could assist with the delivery of EU climate objectives. A useful approach, which has recently been initiated, would be to use the EU Summits with key countries, such as India and China, to build up longer-term strategic partnerships on climate change, backed up by the EU’s diplomatic network.

Economics/Trade

There is scope for greater consideration of climate change in EU trade and economics policy. At present, the EU Lisbon Agenda is focused around jobs and growth. Climate change objectives are “tacked on” and broader sustainable development goals sidelined in the EU Sustainable Development Strategy. But it is the jobs and growth agenda that will transform our economy over the next generation from a high- to a low-carbon economy. Stronger consideration of climate change challenges in the context of the Lisbon Agenda is recommended. Similarly there is scope for the EU’s trade policy to do more to promote low-carbon technologies and trade in sustainable goods and services (further detail is included in Section 6 on trade and investment).

Development

The EU and its Member States spent US\$55.7 billion in 2005 on development assistance.¹⁵ At the EU Council in December 2004, Member States agreed on an *Action Plan on Climate Change in the Context of Development Cooperation*. However, progress on implementing the Action Plan has been slow. For example, the strategic partnership for the EU and Africa agreed to by the European Council in December 2005 refers to climate change, but it does not explicitly set out how climate change will be incorporated into development assistance. An assessment of progress of the December 2004 EU Action Plan on climate change and development cooperation will be carried out in 2007. Where progress has been made within Member States—e.g., the development of screening tools for climate proofing development assistance—the lessons learned need to be disseminated throughout the EU. (Further detail is included in Section 7 on development cooperation.)

3.2 Transatlantic Relations

Denmark has a close relationship with the United States—strategically and geographically. On the former, the two countries are NATO Members. President Bush and Prime Minister Rasmussen have a close working relationship (for example, Denmark supported the United States in Iraq). Geographically, the United States, Canada and Greenland (being part of the Danish Kingdom) are neighbours. The United States has strategic links with Greenland through the NATO bases located there, which were particularly valuable during the Cold War. More recently, U.S. interests in Greenland have been economic as a result of oil, gas and mineral reserves located across a land three times the size of Texas. Greenland could therefore potentially play an important role in future U.S. energy security. This all goes to show that, over time, Denmark's role in the transatlantic relationship may become increasingly important.

Despite all this, under the existing world order, the leverage that individual EU Member States have with the United States is limited and it is necessary for EU nations to act collectively to increase their influence. In seeking to enhance multilateral processes the EU has a difficult choice—either to aim for an ambitious international regime in which the United States may not wish to participate, or to engage with the U.S. constituencies willing to listen and in areas where common, but maybe less ambitious ground is most likely to be found. If the EU opts for the latter, it is important for the EU to correctly identify the common ground and provide support for its allies on climate change if it is to stay true to its universal values and improve levels of engagement.

3.2.1 Opportunities for Integration

Joint approaches towards investment and development assistance

Rapidly developing countries, such as China, are investing heavily in resource-rich countries, often without full regard to their governance structures, levels of transparency or human rights record. This has the potential to undermine the development and environmental goals of Western nations in these third nations. It is essential that Western nations investing in emerging economies use their diplomatic levers to encourage these rapidly emerging economies to take climate change and development objectives into account in their interactions with third countries. For example, joint action could be taken by the United States, Canada and the EU to work with emerging economies in promoting common standards for investment activities across the globe so that climate change is properly taken into account. Western nations could also incorporate these standards into their export credit guarantee policies. This

re-framing of climate change as a development and investment issue is likely to result in a more engaged audience among various U.S. constituencies than approaching climate change as an isolated global environmental threat.

The Transatlantic Economic Initiative

The Transatlantic Economic Initiative is a strategy to enhance transatlantic economic integration and promote growth, spur innovation and create jobs.¹⁶ It covers many of the areas critical for tackling climate change, namely regulatory cooperation, investment, energy security, innovation, trade, procurement and services. At present, measures to tackle climate change are not integrated into the initiative and there is scope for thinking more intelligently about how the development of robust innovation policies might drive the technology revolution needed for a low carbon economy. As above, concepts of innovation and technological revolution play well with the U.S. audience.

3.3 The Arctic

The Arctic is, in many ways, on the front line of impacts of climate change. It is where some of the most significant physical impacts on climate change are being measured (e.g., retreating ice). This, in turn, has profound impacts on indigenous communities and wildlife. Some indigenous peoples have begun to take legal action against energy companies, claiming that they have been harmed by climate change. In addition, increased transportation and resource exploitation opportunities are being opened up, creating what has been dubbed a new “Great Game.” All of these graphically add to the powerful iconic status that the Arctic has in popular imagination.

On the one hand, the political and legal situation of the Arctic is unlike Antarctica, in that only the Arctic countries claim sovereign rights there. In addition, the actual boundaries of the Arctic are not as clear as Antarctica. On the other hand, the Arctic is similar to Antarctica in that there are competing territorial claims by the Arctic nations to parts of the Arctic, such as the Northwest Passage and Hans Island. These entitlements relate to access to resources as well as national security concerns about transit passage, which are discussed in greater detail in Section 5.

The increased competition over natural resources in the Arctic, including oil and gas, and the associated increase in transport and infrastructure, have the makings of a vicious cycle vis-à-vis climate change. Climate change is making oil and gas exploitation possible, yet this activity will contribute to more climate change. Finding a way out of this cycle will be difficult, as each Arctic country will be tempted to pursue their short-term economic interests. A bargain that encompasses wider interests will likely need to be struck in order to

curtail these activities—a bargain based on longer-term economic and social cooperation, as well as environmental sustainability.

3.3.1 Opportunities for Integration

Existing institutions and initiatives

Although there is no unified regime, as exists for Antarctica, a considerable amount of international cooperation on the Arctic exists, as reflected by a number of treaties and institutions, as well as non-governmental initiatives. These are mainly aimed at managing natural resources and creating frameworks for interaction at regional and sub-regional levels. Some of these have carried out activities relating to climate change, such as the 2004 Arctic Climate Impact Assessment (ACIA) that was carried out through the Arctic Council. There has been little follow up to the Assessment's policy document at the Arctic level, and by and large, climate change does not figure into existing frameworks. However, there might be possibilities for integrating climate change in the *Action Plan on Sustainable Development of the Arctic*, the work on increased well-being of Arctic peoples, eliminating pollution from industrial activities in the Arctic, and the conservation and sustainable use of natural resources.

The place of the Arctic in the wider international arena

Politically, the Arctic tends to be marginalized *vis-à-vis* the wider world. There is no coalition of countries that seek to represent Arctic interests in the way that, for example, AOSIS (Association of Small Island States) exists in the climate negotiations. In part this is because Arctic interests tend not to be among the top priorities of the countries concerned. Nonetheless, the wider world has a strong interest in the Arctic for scientific, political and commercial purposes.

3.4 The United Nations System

The universal membership and comprehensive approach of the UN system make it an important instrument in Danish foreign policy. Climate change is an international collective action problem and well-functioning international institutions are an important prerequisite in providing an effective multilateral response. The UN General Assembly has passed annual resolutions since 1999 on the protection of the global climate that emphasize activities under the United Nations Framework Convention on Climate Change (UNFCCC). Yet, global efforts under the Convention and Kyoto Protocol have attained only modest achievements when one considers the major effort required to effectively mitigate and adapt to climate change. The UN system includes a plethora of institutions and bodies, many of which undertake activities that

impact on or are affected by the global response to climate change (e.g., UNFCCC, other multilateral environmental agreements [MEAs], United Nations Environment Programme [UNEP], United Nations Development Programme [UNDP], Food and Agriculture Organization [FAO], World Health Organization [WHO], etc.). The complex interlinkages between these groups mean that coordination and integration of climate change activities is difficult, and often climate change is not a factor in planning and decision-making.

3.4.1 Opportunities for Integration

An effective multilateral response to climate change can only be achieved by enhancing the effectiveness of the UN system through improved cooperation, so that these organizations have the capacity to respond effectively to global challenges of importance to present and future generations. Input to the assessment of the UN system should stress that climate change is a cross-cutting issue rather than a discrete topic to be addressed under an environmental discussion. Indeed, it has impacts on all three areas of inquiry of the High-level Panel formed in April 2006 to strengthen UN performance in humanitarian affairs, development and environment.

Climate change could be put more firmly on the agenda of the Environment Management Group, which is meant to facilitate inter-agency coordination on the environment across the UN. It might be useful to put climate change on the agenda of the UN Development Group to encourage the consideration of climate change in efforts to achieve the MDGs in developing countries. Climate change could be encouraged as an agenda item (perhaps on a multi-year basis) of the Global Ministerial Environment Forum (GMEF), building on the 2006 consultations on energy and environment where many ministers emphasized the linkages between energy and climate change. Greater coordination among the various relevant MEAs could be encouraged through support of the Joint Liaison Group coordinating activities of the UNFCCC, Convention on Biological Diversity (CBD) and Convention to Combat Desertification (UNCCD); and by encouraging this coordination to extend across other conventions and organizations.

UN agencies invariably will be called in to provide assistance for the large-scale humanitarian catastrophes that result from climate-related drought, floods, crop failure, mass migration and extreme weather. Climate change needs to be viewed within the UN system as a fundamental threat to prosperity and security, not just another environmental problem. This is an issue that could be considered by the Security Council (further detail is included in Section 5 on international peace and security).

4. Energy Security and Investment

4.1 Critical Issues: The Impact of Energy Security on Climate Change Efforts

Energy security and investment issues are becoming a top priority at the national and international level, and will remain so as long as current international geopolitical uncertainties continue to fester and the resource requirements of emerging powers such as India and China continue to grow. Energy security is not a new phenomenon, but what is different in the 21st century is the increased complexity of the issue and the speed at which change is taking place. For example, social and environmental issues (like climate change) that were not previously considered to have interdependencies with energy security issues are now viewed differently, and many regions see certain climate change policies as being in direct opposition to specific energy policies. Addressing energy security has never been more complex.

The world is expected to change dramatically over the next 20 years, presenting significant challenges for energy production and use. In a November 2005 speech, Tony Hayward, British Petroleum Chief Executive, Exploration and Production, illustrated some of the expected changes over this time period:

- demand for oil in 2025 is forecast to be around 45 per cent higher than it is today. On the same estimates, the demand for gas could be more than 65 per cent higher;
- China will be the world's second largest economy;
- the world will have added between one and two billion people to its population; and
- the next two decades will be the crunch time for dealing with climate change.¹⁷

Energy security has become an issue of increasing importance. The G8 meeting in Russia in July 2007 focused on Global Energy Security. Energy tops the agenda in the EU as a result of high oil and gas prices; Russian gas supply disruptions in early 2006; discussion on climate change strategies; and increasing investment needs for power generation and energy infrastructure.¹⁸ Energy supply security, environmental sustainability and competitiveness are central objectives of EU energy policy. A debate has been initiated on energy policy

with the publication of the 2006 Green Paper, *A European strategy for a sustainable, competitive and secure energy*.¹⁹ The Green Paper notes that climate change needs to be dealt with in a manner compatible with the Lisbon objectives, and recommends that the geographic scope of the EU ETS be broadened and that the EU promote an international agreement on energy efficiency. The European Environment Agency notes that considerable progress has been made in developing policies to reduce the environmental impacts of energy production and consumption, but many of the EU-wide policies have not been fully implemented and positive effects have been less than expected in regard to delivering measurable environmental benefits.²⁰

When dealing with energy security and climate change, the duelling issues of growth in fossil fuel energy demand and the need to reduce GHG emissions present challenges for policy-makers. Some view this as a dilemma that cannot be rectified, while others point to the opportunities in crafting appropriate energy policy that takes climate change into account. For example, many policies on energy efficiency and renewable energy often have clear climate change benefits, but care must be taken in developing these policies so as not to impact negatively on other environmental, social and economic issues. Another example is clean fossil fuel production policy, where a number of governments and national and international organizations are working to develop key enabling technologies such as clean coal with carbon dioxide capture and storage (CCS).

A changing climate will have implications for energy systems, especially those that rely heavily upon the natural environment. In its Third Assessment Report, the IPCC noted that of all energy sources, hydropower generation is likely to be impacted the most by climate change due to its sensitivity to the amount, timing and geographical pattern of precipitation and to changes in temperature.²¹ Yet hydro and other renewable, weather-dependent energy sources such as wind, solar, bioenergy and tidal power will need to constitute a significantly larger proportion of the future global energy mix if efforts to mitigate climate change are to be successful. In addition, there are indications that nuclear energy may get a revival, particularly in countries that wish to diversify their energy supply. Although this provides an alternative to fossil fuels that is free from carbon dioxide emissions, it has other implications in terms of finding solutions for storing nuclear waste and proliferation of nuclear technology for military use. Achieving energy security and mitigating climate change though nuclear energy could lead to other security problems.

4.2 Opportunities for Integration

4.2.1 Alignment between Climate Change and Energy Security Goals

Policy-makers and advisors have already spent a lot of time thinking about the alignment between climate change and energy goals. The UN-EU Summit in Vienna in June 2006 set out a series of cooperative actions on energy, energy security and climate change. The 2006 G8 statement outlines a useful framework to examine energy security and investment. It is a combination of: international actions and coordination on key aspects of energy production, infrastructure security and trade; recognition of the need for energy efficiency improvements; and the development and adoption of cleaner forms of energy as well as the need for individual countries to develop and implement energy security plans. Investment in all aspects of energy R&D, production, transportation and use are essential because new processes and approaches are needed to address the issues of climate change and sustainable development. This means the development of low-emissions and low-cost energy sources that are widely available and accessible to energy-users of all types (in developed and developing countries).

Actions taken on climate and energy security often are not fully integrated and frequently are not pursued with a sufficient level of urgency. The debate on energy security needs to move beyond the security of supply question for importers and the security of demand question for exporters, to be integrated with other issues such as climate change and access to a modern energy supply by hundreds of million of people in developing countries. Western foreign policy decision-makers may need to take the lead on this integration, simply because many of the world's energy producers have other pressing social issues and priorities to contend with (such as poverty alleviation and development goals). Meaningful actions need to take place within the next decade if the impacts of climate change are going to be kept within reasonable bounds. The urgency for early action is simply because of the length of time it takes for policy measures and long-term investments to result in significant changes to energy systems and infrastructure, combined with the short timeframe in which emissions need to be curtailed in order to keep global atmospheric GHG concentrations at a level that avoids serious harm.

4.2.2 Growing Interdependence in Achieving Energy Security

The growing interdependence between countries in their efforts to achieve energy security reinforces the notion that energy is increasingly becoming part of geopolitical relations. Major new economic powers, such as Russia, China

and India are lining up as key consuming and producing countries, and new foreign-policy-making still needs to digest the full implications of this development. Both importers and exporters have an interest in ensuring security of supply at constant levels and affordable prices, and maintaining stable relationships. Thus, any shift in energy patterns to address climate concerns will have to be as concerted and coordinated as possible; otherwise there will be losers at both the exporting and importing ends. On the importing side, there would appear to be some advantage in finding climate-friendly alternatives to traditional energy sources, but these arrangements need to be based on the legitimate energy needs of all countries involved—and the wider foreign policy implications related to creating the right political and economic environment for this to happen.

Many countries and regions, such as China, India, the United States and the EU, increasingly have to rely on imported energy to satisfy their needs. For example, to enhance energy security, China has adopted an aggressive “Go-Out” (*Zou chu qu*) policy of overseas investments in oil assets by state-owned oil companies,²² and has introduced a law to increase the use of renewable energy to 10 per cent by 2020.²³ The renewable energy law, which was developed and passed to respond to power shortages and increases in harmful emissions, will also contribute to reductions in carbon dioxide.

Other countries, such as Russia, Canada and Mexico are increasing their energy exports. As a supplier of several energy types to many countries, Russia must be considered as a potential influence on the development of other countries’ energy security strategies. This is best illustrated by its move in January 2006 to cut off the supply of natural gas to Ukraine and other parts of Europe. The halt on energy exports only lasted for a short period, but clearly illustrated issues of energy insecurity and vulnerability that other energy-reliant countries could potentially face. Russia has long used cheap natural gas to maintain influence in the former republics of the Soviet Union. Russia’s penchant for energy assertiveness has far-reaching implications for Europe’s energy security because of its increasing dependence on Russian natural gas.

Energy security is a global issue, and energy resources (or lack thereof) are essential components of many countries’ foreign policy. Rising global energy use leads to greater interdependence, and with it hard choices related to the security of energy supplies and climate change.

4.2.3 OPEC and the International Community

OPEC countries are highly reliant on revenues from fossil fuel exports and consistently argue that measures to reduce GHGs will have a significant negative impact on their economies. If the climate change negotiations are to

engage OPEC and move forward, new approaches will be needed to engage constructively with the energy exporters. Wider economic and political factors influencing OPEC country positions provide opportunities for integrating climate change into foreign policy goals. Four areas worth considering include:

Economic diversification

A number of Gulf countries are liberalizing their economies and undertaking substantial internal economic reform. There is a crucial need to provide new jobs for the growing, young populations in OPEC countries and address the poverty and marginalization experienced among these groups, despite their wealth of resources. This marginalization, often a result of poor governance and uneven distribution of resource wealth, increases sensitivity towards the West, fuelling radicalism and, in extreme cases, terrorism. Existing policies by the West to assist OPEC countries to liberalize their economies and increase foreign investment could have a substantial climate change side-benefit. As well as helping OPEC countries diversify their economies, reduce their reliance on wealth from oil and gas, and provide much needed employment, they will also help OPEC participate in the global shift towards a low-carbon economy.

Increased recovery of resources

Energy-producing countries, both exporting and importing, are interested in ways to expand their resource base and increase the recovery of these resources. One topical solution for dealing with climate change that does not imply a reduced role for the fossil fuel industry is CCS. Although this technique of capturing and storing GHG emissions is controversial on some fronts, it has gained considerable support in international circles and with the energy industry. CCS is an attractive option for oil and gas producers simply because the injected carbon dioxide acts, in many circumstances, to increase recovery of hydrocarbons, such as oil and coal bed methane, which translates to increased production and revenues for producing companies and nations. Other techniques for enhancing the recovery of energy resources while decreasing the environmental impacts are being explored.

Stable oil prices

High oil prices can encourage investment in new and more efficient technologies, but can also encourage the switch from oil and gas to coal to other forms of energy. An additional enduring concern for producer countries is that high energy prices may lead to a global recession and the associated reduction in the demand for energy. There is common interest between OPEC producers and consumers to keep demand and prices within reasonable bounds.

Wider physical and economic development plans

OPEC countries will increasingly need to take into account the potential adverse impacts of climate change. While levels of vulnerability vary between countries, most will experience an exacerbation of existing climate conditions with water resources, land degradation, reduced agricultural productivity, sea-level rise, flooding and salt-water intrusion identified as prominent risks.

4.2.4 Danish Strengths in Renewable Energy and Energy Efficiency

Key opportunities are associated with Denmark's domestic energy knowledge and know-how. Denmark could play a leadership role by orienting foreign policy to influence other countries in regard to increasing renewable energy use and energy efficiency. These two key areas, which are included in most countries' energy security plans, promote sustainable development, lower environmental impacts and slow climate change.

A report by the Danish Energy Authority stated: "The preliminary energy statistics for 2005 show that consumption of renewable energy etc. in 2005 rose by 4.5 per cent. Consumption of biomass has grown in particular. Renewable energy etc. is accounting for an ever greater proportion of total energy consumption. In 2005, renewable energy etc. made up 15.8 per cent of adjusted gross energy consumption, as opposed to 15.3 per cent in 2004."²⁴ This experience in wind energy and bioenergy could be used to influence clean energy choices and develop trade and investment opportunities in the developed and developing world. Denmark is already widely viewed as a global leader in the wind energy industry, but it is not such an obvious leader (to the outside world) when it comes to bioenergy. Perhaps more effort should go into the promotion of Danish efforts in this area. The partnership on bioenergy between Denmark and the other three continental Nordic countries (Norway, Sweden and Finland) might be a very powerful force in bioenergy circles, considering the particularly prominent role that Finland plays in this area.

Denmark has significant experience and knowledge in the use of regulations, market mechanisms, incentives and technology in addressing energy issues which would be valuable to others who are or will be going down the same carbon-constrained path. This approach could build on Denmark's traditional role as an international trading nation with specific experience in energy trading to include broader dimensions of clean energy for developing countries and experiences in enhancing energy security.

Denmark also has valuable energy demand knowledge through first-hand experience in energy conservation and energy efficiency. In fact, Denmark's energy intensity is the lowest in the EU and 35 per cent below the IEA average. Denmark has experience on establishing effective voluntary approaches with

industry and with sectoral energy efficiency approaches that would be valuable and marketable to other countries, including North America and the developing world. Knowledge of the most effective approaches in energy efficiency improvements is valuable and marketable, especially the lessons learned in first hand experience with a variety of energy-reducing initiatives (e.g., those with a negative cost, those with a low cost [below US\$10 per tonne CO_{2e} saved] and those which are expensive [above US\$50 per tonne CO_{2e} saved]).

Opportunities to exploit these strengths and other identified opportunities could be pursued through participation in international technology cooperation programs, many of which include the large emitting developed and developing economies. The EU is a member of the Carbon Sequestration Leadership Forum, International Partnership for a Hydrogen Economy, Generation IV Nuclear Partnership, ITER, and the Renewable Energy and Energy Efficiency Partnership (REEEP). While most of these agreements have not demonstrated substantive outcomes to date (often because they do not have a permanent source of funding), participation in specific initiatives can enhance opportunities to promote Danish strengths in technology and know-how.

5. International Peace and Security

In a major London address in early 2006, British Defence Secretary John Reid warned that global climate change and dwindling natural resources are combining to increase the likelihood of violent conflict over land, water and energy. Climate change, he argued, “will make scarce resources, clean water, viable agricultural land even scarcer”—and this will “make the emergence of violent conflict more, rather than less, likely.”²⁵ This speech reflects a shift in strategic thinking, where military analysts are increasingly recognizing that environmental degradation and resource scarcity—stressors that will be exacerbated by climate change—could be potent sources of instability and armed conflict in the years to come. The European Security Strategy notes that climate change will aggravate competition for natural resources, and likely increase conflict and migratory movements in various regions.²⁶

5.1 Critical Issues: The Impact of International Peace and Security on Climate Change Efforts

The impact of climate change in fragile states around the world may not be so much a case of entirely new security threats, but more of enhancing existing instabilities and threats. There is no clear, mono-causal link between climate change and conflict. Environmental factors are rarely, if ever, the sole cause of violent conflict; however, it is clear that environmental stress can increase the severity, duration and collateral impacts of a conflict. The security dimensions of climate change are significant and will affect both the developed and the developing worlds.

Four dimensions of this scenario are of particular relevance to Danish foreign and security policy: environmental degradation; resource scarcity; movements of environmental refugees; and contests over access to newly accessible resources.

5.1.1 Climate Change may Aggravate Environmental Degradation

Climate change is a powerful force that will affect our environment in complex and interrelated ways. Early climate change scenarios predicted that the most serious impacts of climate change would fall on northerly and southerly latitudes. However, more recent models suggest that climate change could result in less rainfall around the equator and lead to a “drying out” of the tropics. This would entail serious security implications. Coupled with rapid population growth, there is a very real concern that climate change could undermine the

“carrying capacity” of many developing countries—that is the capacity of countries to provide adequate food and water for its population. In particular, countries suffering environmental stress but with weak institutions and limited coping capacity are likely to experience increased crime and social unrest as well as the rise of radical social movements.

Developed countries are also not immune to the impacts of climate change and the expected increase in the severity and frequency of catastrophic weather events.²⁷ Hurricane Katrina on the Gulf Coast of the United States in 2005 was a powerful demonstration of the ability of such events to overwhelm rapidly the resources and the adaptive capacity of even the wealthiest countries.

5.1.2 Climate Change may Accelerate Resource Scarcity

Linked to accelerating environmental degradation is the prospect that climate change will further limit the supply of already scarce resources such as agricultural land and water. How countries and communities in resource-poor regions respond and adapt to reduced access to key resources is central to the possible security implications of a changing climate. It is predicted that Egypt, for example, will be affected by both temperature increases and sea-level rise. The first will increase evapotranspiration and the water needs of agriculture resulting in declining yields for agriculture. The second will inundate some of the most fertile land and densely populated regions. In Egypt, a sea-level rise of 37 cm by 2060 would cause food self-sufficiency to decline from 60 per cent in 1990 to 10 per cent by 2060.²⁸ Former UN Secretary General Boutros Ghali warned in a 2005 interview that war between the countries of the Nile Basin over water is almost inevitable.²⁹

5.1.3 Climate Change may Drive “Distress Migration”

The combination of environmental degradation, more frequent extreme weather events and resource scarcity can be expected to displace large numbers of “environmental refugees” within countries and across borders. A sea-level rise of 45 cm in Bangladesh would result in a loss of nearly 11 per cent of Bangladesh’s territory, forcing the relocation of an estimated 5.5 million people.³⁰ Increasing desertification is expected to cause the movement of some 60 million people from Sub-Saharan Africa towards Northern Africa and Europe between 1997 and 2020.³¹ Large population movements are already recognized by the UN Security Council as constituting a potential threat to international peace and security, particularly if there are pre-existing ethnic and social tensions.³² Immigration is, of course, already a very contentious issue within Europe.

Current projections of sea-level rise coupled with a likely increase in the frequency and severity of storms may make many small island states, such as

Kiribati and Tuvalu, uninhabitable.³³ In this sense, climate change presents the most serious security problem that any country can face—the entire loss of its territory. The President of the Federated States of Micronesia put this bluntly, “sea-level rise and other related consequences of climate change are grave security threats to our very existence as homelands and nation-states.”³⁴ The social, economic and political ramifications of large numbers of environmental refugees could be profound, and are increasingly becoming a reality with South Pacific island nations pursuing relocation options. Tokelauans have access to New Zealand, the Marshallese can settle in the United States under the Compact of Free Association, and Canada is funding the relocation of residents inland from parts of Vanuatu affected by climate change.³⁵

5.1.4 Conflict over Strategic Trade Routes and Newly Accessible Resources

Climate change’s impact on polar ice cover is redrawing global trade routes and opening up new areas to oil and gas exploration. Already ice cover in the Northwest Passage is thinning.³⁶ By September 2005, Arctic sea ice had dropped to its lowest level on record. In fact, the same year, the Northern Sea route along the Siberian coast—once not navigable in its entirety—was free of ice for a whole month. And in August 2005 a Russian ship named the *Akademik Fyodorov* was the first ship to be able to reach the North Pole without the help of an icebreaker.

The retreat of the sea ice has serious implications for control over these highly strategic and potentially valuable trade routes. Reliable transit through the Northwest or Siberian passages would dramatically reduce freight transport time. For example, ships travelling between Copenhagen and Yokohama have to travel only half the distance if they go along the north Siberian coast as through the Suez Canal. In terms of carbon dioxide emissions, shorter transport routes would have a positive environmental effect.

The receding sea ice is also opening up new possibilities for oil and gas exploration in the increasingly accessible Barents Sea. The Arctic as a whole is believed to contain as much as a quarter of the world’s unextracted reserves of oil and gas.³⁷ Rising temperatures may also change the distribution of other resources such as cold water fish stocks which could move north. At stake are sovereign rights to enormous quantities of natural resources as well as control over potentially valuable trade routes. Norwegian foreign minister Jonas Gahr Støre noted in October 2005: “In the years to come, it may be from this high North that both continental Europe and the United States will be looking for additional supplies of oil and gas.”³⁸ Somewhat ironically, climate change

might be revealing the very fossil fuels that could add even more carbon dioxide to the atmosphere.

These valuable resources and strategically important trade routes have already generated significant international tension over their control. Denmark and Canada, of course, have had a long-running and much publicized disagreement over sovereignty of Hans Island in the Nares Strait. While it is nearly impossible to envisage this particular dispute ever escalating into armed conflict, it does indicate the tensions that contested sovereignty could generate in the future.

5.1.5 The Security Link

Fundamentally, climate change threatens to undermine governments' ability to ensure security and stability. While the majority of the scientific data is not disputed, climate change still appears low on a list of foreign policy priorities, in part because the threat feels abstract and response measures are too often poorly defined and communicated. The "security link" conveys added, and arguably necessary, gravitas to the debate on climate change; and an appreciation of the security implications of climate change could give new impetus to the climate change agenda.

More stringent commitments to reduce carbon dioxide emissions may generate their own security implications. If renewable energy sources became more valuable as a result of an ambitious post-2012 climate agreement, the political economy of energy could shift dramatically. This could generate new tensions over access to different sources of energy or resources (such as water downstream of large dams). In addition, there are questions as to whether a widespread move towards nuclear power as a less carbon dioxide intensive form of energy production would have an impact on nuclear proliferation.

5.2 Opportunities for Integration

The climate change debate in general has not yet articulated effectively the national and international security implications of climate change in a way that helps to generate increased momentum towards more rigorous commitments to reduce carbon dioxide emissions. In 2000, then UN Secretary General Kofi Annan recognized that non-traditional security challenges "require us to think creatively, and to adapt out traditional approaches to better meet the needs of our new era."³⁹ This is as true for the global threat of climate change as the global threat of terrorism.

One way to adapt a traditional approach to peace and security would be to endeavour to get climate change more fully recognized as a threat to international peace and security within the UN system. The General Assembly has already directly noted the threat that sea-level rise presents to small island

states.⁴⁰ The UN Security Council is the primary entity mandated to decide on threats to the international community and it is also empowered to take (coercive) action to mitigate those threats. If it were to explicitly recognize climate change as a threat to international peace it would lend tremendous weight to the climate change debate.

Typically, the Security Council focuses reactively on immediate threats. The challenge would be to convince its members that climate change presents a proximate threat. However, given that the Security Council has already recognized population movements and nebulous, cross-border issues like terrorism as threats to international peace and security, it is not unthinkable that climate change will eventually find its way into a resolution of the Security Council; though the political barriers to this are certainly formidable. Denmark could play an important role in scoping out these barriers and providing a balanced evaluation of how to improve prospects, in the not too distant future, for recognition of this issue as a security threat in the UN Security Council.

In a similar vein, Denmark could work to promote the link between climate change and security at an EU level and through NATO. In particular at the EU level, Denmark could work to operationalize the acknowledgement of climate change as a threat to international security within the European Security Strategy with clear commitments on what this means in terms of peacekeeping and European foreign policy.⁴¹

It is likely that climate change will play a role in future UN peacekeeping deployments—both as a reason for deployment but also potentially as an element of peacekeeping mandates. It is possible that future UN peacekeeping deployments might have to mediate access to water resources limited, in part, by climate change. With enlarged peacekeeping deployments in Africa (such as in Darfur) it may be valuable to help regional organizations such as the African Union build their capacity to deal with the security threats that may come from climate-induced degradation and scarcity.

Finally, an increase in environmental refugees will present very real challenges to the EU's immigration policy. There is growing interest in EU circles in focusing development aid more effectively on "regions of origin" of immigration. This tries to balance the image of "fortress Europe" with attempts to deal with the core drivers of immigration in order to achieve more effective immigration policy all-around. Current political winds in Denmark are blowing the country more firmly into this camp. The potential impact of climate change on distress migration adds a new dimension (and perhaps impetus) to the move towards supporting sustainable development in areas likely to become source regions for environmental migrants.

6. Trade and Investment

6.1 Critical Issues: The Impact of Trade and Investment on Climate Change Efforts

There are three main ways in which trade and investment policy objectives might influence the ability and inclination of nations—particularly developing countries—to collaborate on effective climate change efforts in a post-2012 context:

- trade and investment liberalization can provide the means, and the necessary goodwill, for developing countries to address mitigation and adaptation;
- trade and investment rules can act as aids or obstacles to climate change efforts; and
- trade and investment relations can constitute a platform for wider cooperation.

The primary linkage between trade policy and climate change is in the potential of trade policy to affect the means of the trading states to address mitigation and adaptation objectives. Trade liberalization has the potential to increase the efficiency with which the international basket of goods and services is produced and delivered, allowing countries to specialize in those areas in which they have some comparative advantage. When this works, it increases the economic strength of nations, among other things potentially increasing the government revenues available for addressing mitigation and adaptation objectives related to climate change. (There are important caveats; some are discussed in the next section.) Increased efficiency of production can also directly contribute to resource-saving and reduced GHG emissions.⁴²

An important caveat is worth noting. The potential benefits of trade liberalization depend crucially on the integrity of many governmental and non-governmental institutions in the affected sectors. Particularly relevant to the present discussion is the need for a strong regime of environmental regulatory protection. If, for example, a rainforest-rich state has a poor regime for protection of forests, indigenous peoples and biodiversity, liberalized trade might induce deforestation to produce cash crops for export—a trend that will aggravate climate change.

A linkage related to this primary connection is the international goodwill or hard feelings that can be engendered by good faith or bad faith negotiations. The now-stalled Doha Development Agenda has been criticized by many

developing countries as failing to live up to its name.⁴³ If it were to be concluded in a way that left key developing countries dissatisfied, it would likely create a less fertile ground for cooperation on other policy fronts, climate change included.

A second sort of linkage is based on the impacts of trade and investment rules themselves, and their potential for good or harm in fostering post-2012 efforts on climate change. A number of ongoing and planned negotiations cover issues that have a direct impact on countries ability to undertake such efforts:

- WTO negotiations on lowering tariff and non-tariff barriers to environmental goods and services could, if they are successful—many are skeptical at this point—create better markets for goods and services that directly contribute to combating climate change, including environmental technologies such as wind power, in which Denmark has strong comparative advantages.
- WTO negotiations on rules related to subsidies might conceivably reinstate the lapsed “Article 8” carve-outs that allowed for subsidization of R&D and for subsidies to compliance with environmental regulations.⁴⁴
- WTO negotiations on the interaction between the WTO and MEAs such as the UNFCCC and the Kyoto Protocol have, with their current mandates, little prospect for reducing the potential for legal clashes, but in fact carry some downside risk.⁴⁵
- If the talks were to result in a substantial decrease in OECD domestic support to agricultural producers and increased market access for Southern producers, they would thereby increase the value of farming as an activity and farm land as an input for millions of Southern producers.⁴⁶ This might encourage policy-makers and producers to more heavily invest in measures aimed at increasing the sector’s adaptive capacity.
- Negotiations on the liberalization of services in the WTO, the EPAs and other fora might end up improving the provision of various climate-relevant services in developing countries: energy services, water services and transportation services (including areas in which Denmark has particular expertise). The manner of liberalization, and the capacity of the developing country partners to manage investment (writing adequate concession contracts, imposing regulatory oversight, etc.), will determine whether the final impacts of such negotiations are positive or negative from a climate change perspective.⁴⁷

A final linkage is based on the tendency of trade and investment agreements, particularly regional agreements, to act as platforms or facilitators for cooperation that goes beyond the economic, to areas such as environment and development. The Euro-Med Agreements, for example, are much more than trade agreements,

and encompass a broad range of cooperation and capacity building. As such, properly elaborated association agreements can significantly boost the capacity of partner states to address climate change objectives, instill a more complete understanding of climate change imperatives, and bolster the motivation for such states to participate in international efforts to combat climate change.

There is another sort of linkage between climate change policy and trade policy related to competitiveness. Strong national commitments to action on climate change will have negative impacts on the competitiveness of some trading sectors *vis-à-vis* their competitors in countries that undertake no such commitments. The impacts will vary considerably from sector to sector.⁴⁸ This is actually a negative linkage, in that it will motivate some states not to collaborate on international efforts to combat climate change—to “free ride” on the efforts of others. To counter this negative incentive, countries with emission reduction commitments might consider measures to neutralize the incentive for carbon-intensive industries to outsource to “free riding” countries, from where goods are produced at lower cost for western markets. Measures of this nature would involve careful consideration within the MEAs, based on a full understanding of the economic impacts of the various policy options.⁴⁹

Private investments through Export Credit Agencies (ECAs) can have important implications for climate change in developing countries, offering investment support in such sectors as power generation, oil and gas development, and energy-intensive manufacturing.⁵⁰ ECA investments are generally concentrated in seven countries (Brazil, China, India, Indonesia, Mexico, the Philippines and Turkey) that are major contributors to global GHG emissions, and much of the investment in the power sector has gone to coal-fired and gas-fired plants.⁵¹ While the ability of ECAs to finance sustainable projects is somewhat limited by the international norms that govern their operation,⁵² there is opportunity to encourage coherence of these activities with global climate change goals through selectivity in the projects they support, the use of common approaches for evaluating the environmental impacts of projects and the introduction of energy efficiency and carbon intensity standards. ECAs respond to directives and policies from finance ministries and foreign ministries responsible for international negotiations, where the debate on improved standards for climate change issues should be addressed.

6.2 Opportunities for Integration

The previous section briefly surveyed the major linkages between trade policy and climate change, in an analysis that suggests several opportunities for trade and investment policy efforts to help achieve international climate change objectives.

First, there is a need to focus on the prerequisites to developing countries benefiting from trade and investment liberalization. That is, while liberalization offers opportunities, they can only be exploited by states with the capacity to increase exports, to attract investment, to cushion and facilitate the necessary economic restructuring, to recoup lost tariff revenues, and so on. There is wide agreement that this involves not only the traditional technical assistance for implementing trade law obligations, but goes further to strengthen the domestic institutions and infrastructure that makes these things possible, such as an efficient bureaucracy; rule of law; functioning financial sector; energy and communications infrastructure; functioning regulatory institutions; etc.⁵³ This is the new “aid for trade” agenda, which has substantial—but not complete—overlap with the traditional development assistance agenda. (See section 7.2.5 for further discussion of the trade for aid agenda.)

In the overall conduct of trade negotiations, there is a need to pull back from the traditional mercantilist mode of negotiations, focused on reciprocity and narrow definitions of national interest. The EU EPA negotiations, having at the outset promised a different kind of trade agreement, are wrestling with finding the right balance in this regard.⁵⁴ The Doha Development Agenda, many charge, has underperformed on the development front, and the EU’s aggressive demands for non-agricultural market access and services liberalization (echoed by a number of other OECD countries) may be at odds with a development-centred outcome.⁵⁵ To repeat, the risk is that only those outcomes that truly foster economic development in developing countries will equip those countries with the means and the inclination to be active players in any post-2012 efforts on climate change.

Second, there is a need to reconcile the objectives of climate change action and a wide number of specific ongoing negotiating areas—in particular the WTO negotiations on environmental goods and services, subsidies, agriculture, trade in services and the relationship between the WTO and the MEAs. In the EPA negotiations, the relevant areas are primarily services and investment. In all these areas there is risk and opportunity from a climate change perspective, both in terms of the direct effects of the negotiating results on climate change, and on the prospects for international agreement in a post-2012 context

Third, in existing and developing bilateral and regional trade agreements (e.g., Association Agreements) there is scope for deliberate efforts to foster capacity and motivation to act on climate change. This can happen in the context of fostering cooperation in the partner region itself (in the Euro-Med and EPA context, region-building is one of the EU’s explicit objectives), or under the aegis of a more bilateral approach to cooperation, such as support in identifying national interests in the area of climate change. Again, such an agenda would overlap strongly with the traditional development cooperation agenda.

7. Development Cooperation

The impacts of climate change are expected to exacerbate the problems already faced by developing countries, especially LDCs, that have the least ability to cope. Climate change will have a disproportionate impact on vulnerable communities in areas of agriculture, water and health, with serious ramifications for development and the attainment of MDGs. Denmark has prioritized the needs of LDCs in its development cooperation program, where nine of 15 countries on its bilateral programming list are LDCs. Denmark's development policy is considered a central and integral part of foreign and security policy.

7.1 Critical Issues: The Impact of Development Cooperation on Climate Change Efforts

While there are a number of ways in which development cooperation policy might influence the ability and inclination of developing nations to collaborate on effective climate change efforts, it must be recognized that the leverage of official development assistance (ODA) is marginal, particularly in regard to high-emitting developing countries. For example, India has declined bilateral ODA from Denmark, Canada and a number of other countries, choosing to work with only six bilateral funders (including the EU) and multilateral agencies from 2006 onward. In 2005, China was the third largest recipient of foreign direct investment (FDI), after the United States and the United Kingdom,⁵⁶ and therefore does not depend on ODA.

In 2004, FDI accounted for more than half of all resource flows to developing countries and was considerably larger than ODA. However, FDI is concentrated in a handful of developing countries (China, Brazil, Mexico, Singapore and Chile), while ODA remains the most important source of finance in a number of other developing countries. This is particularly the case for most LDCs.⁵⁷ OECD statistics in 2005 demonstrated a scaling up of ODA, with additional aid going toward improving infrastructure, especially in the transport, communications and energy sectors.⁵⁸

The realities of these resource transfers impact on the ways in which development cooperation policy might influence the ability and inclination of developing nations to collaborate on effective climate change efforts. The main linkages are:

- Development cooperation can help provide the means and resources to assist developing countries in dealing with climate change, within a framework that integrates national development goals and MDGs. The

varying levels of development indicate that different types of programming are required to appropriately address priority issues in regard to climate change (e.g., adaptation in LDCs; technology cooperation in high-emitting countries).

- Global programs (e.g., those delivered through IFIs and new forms of partnerships such as the Bill and Melinda Gates Foundation) can be climate-proofed and climate-sensitized to ensure that this aid effectively addresses climate change considerations.
- Aid delivery mechanisms can be improved, or indeed new ones developed, to increase the flexibility to incorporate climate change measures into ambitious development assistance.
- Adequate funding for international institutions (e.g., GEF) can help to ensure that a global approach is used to address this global issue.
- Development cooperation is a fundamental part of the aid for trade agenda, whereby development cooperation can assist in strengthening domestic institutions in developing countries to make increased exports possible. This has considerable overlap with the trade issue, whereby improved capacity can have positive impacts on both trade (e.g., increased foreign investment, better exploitation of the opportunities presented by liberalization) and climate change.

7.2 Opportunities for Integration

There are several opportunities that arise for development cooperation policy efforts to help achieve international climate change objectives.

7.2.1 Addressing the Varying Needs of Developing Countries

The primary linkage is in the potential of development cooperation policy to affect the means of developing countries to address mitigation and adaptation objectives, although countries will have different needs depending on their level of development. Denmark has begun to approach the need of different climate change priorities in development cooperation programming by having priority programming countries (mainly LDCs with a focus on poverty alleviation and sustainable development) and Clean Development Mechanism (CDM) priority countries (Malaysia, Thailand, South Africa, China and Indonesia).

Denmark and the EU have taken steps to climate-proof their development cooperation through the implementation of Danida's *Climate and Development Action Programme*, which builds on and supports the *EU Action Plan on Climate Change in the Context of Development Cooperation*. These ini-

tiatives are at the pilot stage, but Denmark has learned that “climate-proofing” needs to be modified for each country and has to work on many different levels in each country to be successful.

If the needs of program countries (e.g., adaptation in small island developing states [SIDS] and LDCs) can be addressed, they could play a key role in the development of a post-2012 agreement by pressuring larger countries to take on commitments. Directed ODA could help to meet these needs. In the same note, if the needs and concerns of high-emitting countries can be met, they may be more open to taking on commitments, or increasing efforts to reduce emissions—although exerting pressure through ODA is extremely difficult, if not impossible.

7.2.2 Global Programs

The global aid architecture has changed dramatically in the last decade. Nearly a third of ODA now flows through partnership-based global and regional programs whose goals are set at the global level, rather than through the country-focused programs of assistance that have been traditionally used by aid donors.⁵⁹ There is a need to ensure that this aid effectively addresses climate change or at the least does not work against it. Climate proofing, or at least climate sensitization, is needed for the growing global programs (e.g., IFIs, UN agencies, private foundations).

As noted in Section 3, this is an issue at the level of the EU. While the EU strategy on *Climate Change in the Context of Development Cooperation* and its Action Plan provide for a wide range of activities to mainstream climate change concerns in development cooperation so that “they receive a higher profile in priority setting in a way that is completely coherent with the overarching objective of poverty reduction,”⁶⁰ actions indicate that mainstreaming is not always a priority.

Multilateral organizations, such as the World Bank, regional development banks and UN agencies, delivered 32 per cent of total development aid from OECD countries in 2005.⁶¹ Their programming includes grants and low-interest loans for large development projects, and leverages substantial private sector investment. Infrastructure development, particularly in poor nations, is supported by these banks and offers opportunities to move these countries onto a clean energy path in regard to power generation, transportation and energy efficiency. There is also opportunity for mainstreaming climate change, especially in agriculture, forestry and sustainable livelihood projects. These projects offer opportunity for integrated development that addresses a number of concerns, including adaptation and mitigation, as well as the MDGs.

The shifting focus of ODA leaves a gap in improving the ability of developing countries to meet the day-to-day and institutional needs of priority issues, which often do not include climate change. Sensitization to the linkages between priority issues and climate change, and support to system improvements in national and local agencies could help developing countries make this linkage and include climate considerations in programs and projects. Developing countries often lack the resources (both human and financial) to effectively participate in climate change and other negotiations, to support proposal development to access funds from global programs, and to raise awareness of the issue of climate change across sectoral departments.

7.2.3 Aid Delivery Mechanisms

An examination of the delivery mechanisms for aid also presents opportunities for integrating climate change into development cooperation policy. Developing countries are interested in increased funding and programs to prepare for and adapt to climate change. While there are existing mechanisms to respond to these needs, notably the GEF, more responsive programs that could be programmed in a time-efficient manner may interest developing nations. The pursuit of MDGs, working inside national budgets in partner countries, and creating country ownership based on national priorities as set out in Poverty Reduction Strategy Papers offer opportunity for donor countries to address climate change in an integrated manner that focuses on the development priorities of partner countries.

More frequent and serious weather-related disasters indicate a need for more effective response mechanisms (which are closely related to adaptation programs). Schipper and Pelling note that disaster relief, if properly addressed, provides an opportunity to address climate change goals and the MDGs in an integrated manner.⁶² Special attention in this regard is needed for LDCs and SIDS because of their high level of vulnerability and risk.

7.2.4 Financing for Development

Developed countries need to demonstrate their seriousness in dealing with the priority issues of developing countries, including climate change, through the provision of substantial funding. While recognizing that simply increasing the amount of money available will not necessarily lead to climate change results, focused spending on programs identified as priorities by developing nations, and adequate funding of existing financial mechanisms established for climate change, can indicate a seriousness and commitment on the part of developed nations. This includes adequate replenishment of the GEF, consistent with or higher than levels of the previous replenishment periods; and sustainable levels of funding for the LDC Fund and the Special Climate Change Fund of the

UNFCCC. In addition, innovative forms of financing, such as the Kyoto-based Adaptation Fund, could lead to new ways of providing funding for climate change programs in developing countries.

Adaptation will require significant funding, and there is recognition that much of this will need to come from domestic resources. ODA could be used to assist developing nations in creating market incentives to direct domestic programs toward climate-friendly choices (e.g., land use) and in increasing the capacity of decision-makers to make the right choices.

7.2.5 Aid for Trade

The importance of Aid for Trade was acknowledged in the 2005 WTO Ministerial Declaration, and a task force has been created to make recommendations on how it could be operationalized. Acting on the aid for trade agenda would demonstrate attention to the specific issues raised by developing countries, and would acknowledge the usefulness of international trade as a vehicle for economic development. This has considerable overlap with the trade issue, whereby improved capacity can have positive impacts on both trade (e.g., increased foreign investment, better exploitation of the opportunities presented by liberalization) and climate change. The aid for trade agenda proposes to build trade-related capacities, and attention could be given to ensuring that areas that overlap with climate change efforts (e.g., transport and other infrastructure) take these issues into account, and at the least do not work against them.

Through international and bilateral development agencies, the amount of trade-related assistance has increased markedly.⁶³ A WTO agreement on aid for trade could further increase this type of support, but it will be only one element in the international community's commitment to support development and poverty reduction. This commitment has many other expressions, including the MDGs, in the context of which the climate change challenge should be addressed.

8. Recommendations

The concluding section of this paper summarizes the options identified in sections three to seven. A brief description and a rationale as to how these areas could open new avenues for the Ministry of Foreign Affairs in achieving climate change objectives in the context of foreign policy is included.

While this paper attempts to identify options through which new dynamics might be brought into the climate change process, as noted in the introduction, it is important to understand that the report is an initial exercise in a challenging area. To further develop these options will require the use of more sophisticated diagnostic tools that disaggregate causality and a dialogue with relevant actors in the identified areas to ensure that the assumptions made in this paper are feasible and workable.

8.1 International Diplomacy

The **way decisions are taken is critical** and the Danish government may be able to influence this process on a number of levels. At the level of the EU, engagement on climate change needs to be taken not only in an environmental context, but also outside the environment “box.” But the limits to climate policy imposed through other policies, such as energy or trade, also need to be removed. This requires EU leaders to engage at a much more strategic level on climate change than at present.

The role of **the EU as a broker** in international negotiations over foreign policy and climate change should not be underestimated. For example, opportunities for dialogue between Arctic countries on a range of issues, such as through the Northern Dimension, might create space for dealing with the problems of increased resource exploitation. The EU has already demonstrated its capability in this area through its diplomacy with Russia over ratification of the Kyoto Protocol, facilitating entry into force. However the EU needs to be more self-confident, coherent and outward-looking to do this effectively.

Increasingly, the EU and the United States are recognizing that in addition to bilateral and multilateral cooperation, there needs to be a mechanism for dealing with third countries. “**Triangulation**” provides the opportunity for the EU or United States to engage with emerging economies (such as China) and third countries in the developing world. Management of the EU/U.S.–China–developing country relationship will be critical if the pursuit of common global goals is to be sustainable.

A number of recommendations can be made in relation to the Arctic. The **Arctic Council's ability to address climate change issues should be strengthened** since sustainable development is at the heart of its mandate. There are opportunities to mainstream the policy implications from the ACIA into its broader work, such as on sustainable development, well-being of Arctic peoples, pollution from industrial activities and conservation of natural resources. These agendas relate to both mitigation of and adaptation to climate change. This may require providing the Arctic Council with a stronger political mandate, which may also include a more bottom up approach to its work and the development of a fund.

Scientific cooperation in relation to climate change can be strengthened, for example by building on the ACIA. This could be done by deepening the analysis (e.g., by developing further scenarios) and a robust program of monitoring. Lessons from scientific cooperation in Antarctica could be applied.

International Polar Year (2007–2009) could be used as a mechanism to **expand international dialogue and cooperation around the Arctic**, both inside and outside the Arctic Council. There are opportunities to use the images arising from climate change impacts to raise awareness of the public and policy-makers on the realities of climate change. It should also be seen as an opportunity to galvanize a more concerted voice of Arctic stakeholders into the wider world.

Danish input to the various coordination bodies of the UN system (e.g., Environment Management Group, UN Development Group, Global Ministerial Environment Forum) could stress that **climate change is a cross-cutting issue** rather than a discrete topic to be addressed under an environment discussion. An examination of climate change and its linkages to the programs and activities of the various UN bodies could help to increase understanding and encourage coherency in this regard.

8.2 Energy Security and Investment

Denmark is well-positioned to promote the idea that **climate-friendly actions will work to enhance energy supply issues**, and to champion this message internationally. Focused research and analysis is needed to demonstrate this linkage and to examine the shifting dynamic of the role of energy security and climate change in geopolitical relations.

Denmark could reinforce this message by targeting and engaging energy-importing countries, such as China which is seeking inputs to strengthen its energy supply situation, through **partnerships in the areas of clean energy approaches, renewables and energy efficiency**. The Danish government

should partner with the private sector to deliver these focused efforts, which are based on successful domestic experience. In this partnership, the government can lever their relationships to strengthen the offers and work jointly with the private sector to market and deliver energy experience and know-how.

For energy exporting countries, efforts to improve market access and promote liberalization will help oil-producers to diversify their economies and improve non-oil investments. Strengthened producer-consumer relations will help to achieve more stable markets and prices. Both could help to achieve economic and climate change goals but it requires **decision-makers to make the connections** among energy, economic and climate change objectives.

8.3 Development Cooperation

To help make these connections among energy, economic and climate change objectives, it is worth **building climate change into policy areas where decision-makers already have traction**. A good example of decision-makers effectively making the connections and drawing on their strengths is the work being carried out by the Danish Ministry of Foreign Affairs to integrate climate thinking into development assistance. This experience in mainstreaming climate change and adaptation in development programming should be encouraged in IFIs, UN organizations and other international fora.

Development cooperation can also be used to **address the varying needs of developing countries and encourage support for international climate change efforts**. For example:

- In LDCs and other vulnerable developing countries: increase funding for adaptation by mainstreaming climate into bilateral aid programs and by encouraging adequate investments in the UNFCCC climate funds, and replenishing the GEF at or above current levels, and encouraging non-incremental financing for adaptation projects; and provide capacity building for climate change negotiators and officials in sectoral departments (e.g., finance, industry, energy) to ensure that they are able to understand and assess the potential impacts of proposed post-2012 regimes and other efforts to address the climate change challenge.
- For high-emitting developing countries: undertake cooperative analysis with these countries to explore the impacts of different post-2012 regime options and the impacts of pursuing a clean energy technology path; investigate options for the transfer of climate-friendly technology to help leverage further clean investment, including through the CDM; and provide capacity building for the creation of market incentives to encourage adaptation actions.

The Danish government could also consider actions and funding to improve disaster relief, and assist developing country populations in dealing with the consequences of extreme weather events. For example, the government could support implementation of the Mauritius Strategy for the further implementation of the Barbados Programme of Action for the sustainable development of SIDS. Other options to pursue include a fund for remedial actions (e.g., insurance mechanism paid for by developed countries) as well as a fund for preventative actions (closely linked or aligned with the climate funds under the UNFCCC and Kyoto Protocol).

8.4 International Peace and Security

Denmark can use its influence in the UN system to try to **get anthropogenic climate change recognized as a threat to international peace and security**; either explicitly under Article 39 of the Chapter VII powers of the UN Security Council, or implicitly as language in a wider resolution.

Opportunity also exists to **incorporate climate change considerations into risk assessments** of Denmark's foreign policy, security and development priorities. Both of these opportunities can be supported by evidence-based research to link climate change with proximate security threats in a way that helps to make the case for concerted action on climate change.

8.5 Trade and Investment

There are a number of specific actions that might help advance opportunities in the area of trade and investment:

- Exert pressure to **tone down the somewhat aggressive EU calls for reciprocal concessions by developing countries** in trade negotiations and in the ongoing EPA negotiations.
- Explicitly **incorporate climate change elements in any aid-for-trade and/or trade facilitation efforts** supported by Denmark.
- **Establish a mechanism for screening the various potential WTO outcomes from a sustainable development viewpoint** (either at the Danish or the EU level). Paragraph 51 of the Doha Declaration envisions a role of this sort for the Committee on Trade and Environment, but to date the challenge has only partly been taken up in the form of *Sustainability Impact Assessments*.⁶⁴ A similar mechanism would have value for the EPA negotiations.
- Based on the results of such a screening, encourage the EU to make a WTO submission (presumably to the Committee on Trade and

Environment) **outlining the importance to climate change efforts of a successful outcome in the various negotiating areas of the WTO.**

- Working from the model of negotiation that helped bring about Russian ratification of Kyoto, **engage in strategic bilateral talks** with those developing countries that are key to both the Doha and post-2012 negotiations, looking for cross-issue agreements that might foster progress.
- Encourage finance ministries and foreign ministries responsible for international negotiations to enter the debate on **improved standards for ECAs for climate change issues.**

8.6 Diplomatic Networking

No change is possible unless there is **institutional buy-in within the foreign policy community.** This requires senior managers within Foreign Ministries to set the direction and provide a focal point within their institutions for pushing the agenda forward. The announcement in June 2006 by the U.K. Foreign Minister, Margaret Beckett, identifying climate change as a priority area for the U.K. foreign mission, is a strong example of this commitment. Beyond that, ongoing political engagement, a diplomatic network willing to deliver and a coherent, cross-government approach are the three most important elements needed to achieve climate change objectives.

Endnotes

- 1 Intergovernmental Panel on Climate Change (IPCC), 2001. *Third Assessment Report, Synthesis: Summary for Policy Makers.* United Nations.
- 2 Meteorological Services Canada, 2002. *Frequently Asked Questions about the Science of Climate Change.* <http://www.msc-smc.ec.gc.ca/education/scienceofclimatechange/understanding/FAQ/index_e.html>.
- 3 A study by the Southampton Oceanography Centre and the Tyndall Centre for Climate Change Research focused on improving estimates of the probable collapse of the thermohaline circulation system. Preliminary results suggest that the probability of this event happening is 10 times higher than originally predicted. See P. Challenor, R. Hankin and B. Marsh, 2005. "The Probability of Rapid Climate Change." A presentation made at the conference: *Avoiding Dangerous Climate Change*, February 1–3, 2005, Exeter, U.K.
- 4 Julio Godoy, 2006. *Global Warming, Not Just Heat Wave.* Inter Press Service, July 21, 2006.
- 5 NASA Goddard Institute for Space Studies Surface Temperature Analysis, 2006. *Global Temperature Trends: 2005 Summation.* <data.giss.nasa.gov/gistemp/>.
- 6 National Oceanic and Atmospheric Administration, 2006. *NOAA Reviews Record-Setting 2005 Atlantic Hurricane Season: Active Hurricane Era Likely To Continue.* <<http://www.noaanews.noaa.gov/stories2005/s2540.htm>>.
- 7 NASA Earth Observatory, 2006. *Record Low for June Arctic Sea Ice.* <earthobservatory.nasa.gov/Newsroom/NewImages/images.php3?img_id=16978>.
- 8 IPCC, 2001; and Arctic Climate Impact Assessment, 2004. *Impacts of a Warming Climate.* Cambridge, U.K.: Cambridge University Press.

- 9 Kelly Levin and Jonathan Pershing, 2006. *Issue Brief: Climate Science 2005: Major New Discoveries*. Washington, D.C.: World Resources Institute.
- 10 IPCC, 2001.
- 11 Parry *et al.*, predict that even at modest levels of global warming, by 2080, tens of millions of people worldwide will be put at additional risk of experiencing hunger and coastal flooding, hundreds of millions at risk of experiencing malaria, and billions of people at risk of experiencing water shortages. See Martin Parry, Nigel Arnell, Tony McMichael, Robert Nicholls, Pim Martens, Sari Kovats, Matthew Livermore, Cynthia Rosenzweig, Ana Iglesias and Gunther Fischer, 2001. "Millions at Risk: Defining critical climate change threats and targets." *Global Environmental Change*, (11): 181–183.
- 12 Council of the European Union, 2005. *Climate change medium and longer-term emission reduction strategies*, 7242/05, March 11.
- 13 Dutch Scientific Council for Government Policy (WRR), 2006. *Summary – Climate Strategy: Between ambition and realism*. <<http://www.wrr.nl/english/content.jsp?objectid=3526>>.
- 14 Louise Van Schaik and C. Egenhofer, 2003. *Reform of the EU Institutions: Implications for the EU's performance in climate negotiations*, CEPS Policy Brief No. 40.
- 15 European Commission (EC), 2006. *Annual Report 2006 on the European Community's Development Policy and the Implementation of External Assistance in 2005*, p. 4.
- 16 At the June 2005 U.S.–EU Summit launched the "Initiative to Enhance Transatlantic Economic Integration and Growth." This covers regulatory and standards cooperation; open and competitive capital markets; innovation and the development of technology; trade, travel and security; energy efficiency; protection of intellectual property rights; investment; competition policy and enforcement; procurement; and services. Further information available at: <http://www.state.gov/p/eur/rls/or/68145.htm>, accessed August 25, 2006.
- 17 Tony Hayward, 2005. "Global Energy Sustainability." *Business Today International Conference*. New York, November 25. <<http://www.businesstoday.org/hayward.htm>>.
- 18 European Environment Agency (EEA), 2006. *Energy and Environment in the European Union: Tracking progress towards integration*. EEA Report, No. 8/2006, p. 11.
- 19 Commission of the European Communities (CEC). 2006. *Green Paper: A European strategy for sustainable, competitive and secure energy*. {SEC(2006) 317}, Brussels, 8.3.2006, COM(2006) 105 final.
- 20 EEA, 2006.
- 21 IPCC, 2001. *Climate Change 2001. Impacts, Adaptation and Vulnerability*. Contribution of Working Group III to the Third Assessment Report of the IPCC.
- 22 Erica S. Downs, 2004. "The Chinese Energy Security Debate." *China Quarterly*, No. 177.
- 23 National People's Congress, 2005. *The Renewable Energy Law of the People's Republic of China*. Government of China. <<http://www.cchina.gov.cn/english>>.
- 24 Danish Energy Authority, 2006. *Continued Improvement in Energy Efficiency in Denmark*. <<http://www.ens.dk/sw33581.asp>>.
- 25 Michael Klare, 2006. "The Coming Resource Wars." *The Energy Bulletin*, March 6. <<http://www.energybulletin.net/13605.html>>.
- 26 EU, 2003. *A Secure Europe in a Better World: European security strategy*. <<http://ue.eu.int/uedocs/cmsUpload/78367.pdf>>.
- 27 Though the disruption of production cycles and extreme weather patterns, desertification or the reduction of water resources.

- 28 Hans Günter Brauch, 2002. *Climate Change, Environmental Stress and Conflict*. AFES-PRESS Report for the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. p. 87.
- 29 BBC News, 2005. *Ex-UN Chief Warns of Water Wars*. February 2. <<http://news.bbc.co.uk/2/hi/africa/4227869.stm>>.
- 30 Jon Barnett, 2003. "Security and Climate Change." *Global Environmental Change*, Vol. 13, Pergamon, p. 9.
- 31 United Nations (UN), 2004. "Facts and Figures: Desertification and Drought." 2003: *International Year of Fresh Water*. <http://www.wateryear2003.org/en/ev.phpURL_ID=5137&URL_DO=DO_TOPIC&URL_SECTION=201.html>.
- 32 Francesco Sindico, 2005. "Ex-Post and Ex-Ante [Legal] Approaches to Climate Change Threats to the International Community." *New Zealand Journal of Environmental Law* 9: 209–238.
- 33 Robert McLeman and Barry Smit, 2004. *Climate Change, Migration and Security*. Commentary No. 88, Canadian Security Intelligence Service.
- 34 Jon Barnett, 2003. p. 7.
- 35 Pacific News Service, 2006. "Niue: No Response Yet To Tuvalu's Resettlement Proposal." *Pacific Magazine*. <<http://www.tuvaluaislands.com/news/archives/2006/2006-01-12.htm>>; and Alan Dupont and Graeme Pearman, 2006. *Climate Change and Security*. Lowry Institute Paper 12. Double Bay, Australia: Lowry Institute for International Policy.
- 36 Rob Huebert, 2001. "Climate Change and Canadian Sovereignty in the Northwest Passage." *Isuma*, 2(4), Winter.
- 37 Alex Duval-Smith, 2005. "Arctic Booms as Climate Change Melts Polar Ice Cap." *The Guardian*, November 27.
- 38 Jorn Madslie, 2005. *Global Warming: Help or hindrance?* BBC News, October 27.
- 39 Kofi Annan, 2000. *We the Peoples: The role of the United Nations in the 21st century*, Millennium Report of the Secretary General, UN Doc. A/54/2000, April 3.
- 40 UN General Assembly resolution 44/206 (December 22, 1989) recognizes the long-term threat posed to many low-lying states as a result of rising sea levels fuelled by climate change (Penny, 2005).
- 41 EU, 2003.
- 42 For a complete survey of the linkages between trade and environment, including those related to efficiency, see IISD/UNEP, 2005. *Trade and Environment: A Handbook* (2nd ed.). Winnipeg: IISD (Chapter 4). See also Brian R. Copeland and M. Scott Taylor, 2003. *Trade and the Environment: Theory and Evidence*. Princeton: Princeton University Press.
- 43 See, for example, WTO, 2005. *Reclaiming Development in the WTO Doha Development Round* (submission of Argentina, Brazil, India, Indonesia, Namibia, Pakistan, the Philippines, South Africa and Venezuela to the Trade and Development Committee). WT/COMTD/W/145, December 1, 2005.
- 44 Note that while this potential exists, it has not yet been actively pursued by any government in the talks. See Francisco Aguayo Ayala and Kevin Gallagher, 2005. *Preserving Policy Space for Sustainable Development: The Subsidies Agreement at the WTO*. Thematic research paper produced for the Trade Knowledge Network. Winnipeg: IISD.
- 45 The problem is that if the WTO Members agree to an approach for handling disputes between Parties to an MEA (the current narrow mandate given by the Doha text), it may limit the ability of the WTO's Appellate Body to appropriately deal with the far more pressing issue of disputes between Parties to an MEA and non-Parties. See Nathalie Bernasconi-Osterwalder, 2005. "Trade and Environment: Where Do We Stand After

Doha?” Paper presented at the conference *WTO’s Contribution to Sustainable Development Governance: Balancing Opportunities and Threats*, Paris, October 21–22, 2005.

- 46 Note that the increased exports would be concentrated in relatively few large exporting developing countries. Of course, there is nothing automatic about the possibility of increased government spending on adaptive capacity in response to liberalization in the agricultural sector; while such investment would be rational, there might need to be proactive international cooperation to bring it about.
- 47 In the context of water services, for example, see Scott Vaughan, 2003. *Privatization, Trade Policy and the Question of Water*. Les séminaires de l’Iddri no. 9. Paris: Institut de Développement Durable et des Relations Internationales; George R.G. Clarke, Katrina Kosec and Scott Wallsten, 2004. *Has Private Participation in Water and Sewerage Improved Coverage? Empirical Evidence from Latin America*. Working Paper 04-02, AEI-Brookings Joint Center for Regulatory Studies; Arthur C. McIntosh, 2003. *Asian Water Supplies: Reaching the Urban Poor*. London: Asian Development Bank.
- 48 For a survey of the issues and the literature, see Aaron Cosbey, 2005. “Climate Change and Competitiveness: A Survey of the Issues.” Background paper to an experts’ workshop: *Climate Change, Trade and Competitiveness*, Chatham House, London, March 30, 2005.
- 49 Such measures would face an uncertain prospect if challenged in the WTO; there is at present little consensus among legal scholars on their consistency with WTO law. For a survey of the debate, see Richard Tarasofsky, 2005. “The Kyoto Protocol and the WTO.” Background paper to an experts’ workshop: *Climate Change, Trade and Competitiveness*, Chatham House, London, March 30, 2005.
- 50 ECA financing is not a component of ODA, but is a financial flow that is larger than ODA.
- 51 Crescencia Maurer, 2003. “Financing Carbon: Export Credit Agencies and Climate Change.” *Transition from Fossil to Renewable Energy Systems: What Role for Export Credit Agencies?* Washington, D.C.: World Resources Institute.
- 52 For example, ECAs of the OECD countries abide by the terms of the *Arrangement on Guidelines for Officially Supported Export Credit* that was established in 1978 to prevent ECAs from distorting capital markets and competing with commercial financial institutions.
- 53 Aaron Cosbey, 2004. *A Capabilities Approach to Trade and Sustainable Development: Using Sen’s Concept of Development to Re-Examine the Debates*. Commissioned by the Swiss Agency for Cooperation and Development. Winnipeg: IISD. In the context of the EPAs, see Matthias Busse, *et al.*, 2006. “The Institutional Challenge of EPAs.” *Trade Negotiations Insights*, 5(3). For a strong statement of this argument in the context of investment in services and infrastructure in particular, see World Bank, 1994. *World Development Report 1994: Infrastructure for Development*. Washington: World Bank/Oxford University Press.
- 54 For a bleak assessment of the results of EPAs based on reciprocity, see Stephen Karingi, *et al.*, 2005. *Economic and Welfare Impacts of the EU–Africa Economic Partnership Agreements*. African Trade Policy Centre Work in Progress No. 10, Economic Commission for Africa, March.
- 55 There is, of course, disagreement about the potential development impacts of the various negotiating demands. For a cogent warning about the potential damage from current proposals, see Faizel Ismail, 2005. “Mainstreaming Development in the World Trade Organization.” *Journal of World Trade*, 39(1): 11–21.
- 56 UNCTAD, 2005. *World Investment Report 2005: Transnational Corporations and the Internationalization of R&D*. New York and Geneva: UN. p. 8.
- 57 *Ibid.*
- 58 OECD, 2005. *Aid Rising Sharply, According to Latest OECD Figures*. Paris: OECD. p. 1.

- 59 Uma Lele, Nafis Sadk and Adele Simmons, 2005. *The Changing Aid Environment: Can Global Initiatives Eradicate Poverty?* Paris: OECD-DAC.
- 60 CEC, 2003. *Climate Change in the Context of Development Cooperation*. p. 4.
- 61 OECD, 2005. *Statistical Annex of the 2005 Development Cooperation Report*. Tables 1 and 15. Paris: OECD.
- 62 Lisa Schipper and Mark Pelling, 2006. "Disaster Risk, Climate Change and International Development: Scope for, and challenges to, integration." *Disasters*, 30(1): 19–38.
- 63 Michael J. Finger, 2006. *Aid for Trade: How we got here and where we might go*. International Lawyers and Economists Against Poverty (ILEAP), Background Brief No. 10.
- 64 Paragraph 51 charges the Committees on Trade and Development and Trade and Environment to "act as a forum to identify and debate developmental and environmental aspects of the negotiations, in order to help achieve the objective of having sustainable development appropriately reflected."

Appendix: Climate Change at the Multilateral Level

A number of processes at the multilateral level offer opportunities to implement strategies to allow developed and developing countries to engage in dialogue and take action on climate change.

1. UNFCCC and Kyoto Protocol

The UNFCCC and its Kyoto Protocol are the most recognized and advanced elements of the response to climate change. The development of a more effective and inclusive approach to addressing climate change in post-2012 was given a considerable boost with the launch of a two-track process initiated under the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP-11/MOP-1) held in Montreal in November/December 2005. These discussions are taking place under Protocol Article 3.9 on future commitments, and under the Convention through a Dialogue on Long-term Cooperative Action. It is clear that negotiations on future commitments will be difficult, and that a “one size fits all,” Kyoto type, absolute target approach to future commitments is not likely to meet the support of major emitters of GHG (e.g., the U.S., China and India).

The first meetings under the two-track approach took place in Bonn, Germany in May 2006. The Dialogue considered advancing development goals in a sustainable way; addressing action on adaptation; and realizing the full potential of technology and market-based opportunities. The meeting, the first of up to four workshops, had no binding or negotiated outcome, although a co-facilitators’ report will be produced.¹ The Ad Hoc Working Group (AWG) agreed to a future work plan to set new targets beyond 2012. The UNFCCC report of the working group meeting noted that the Group’s discussion will focus on the consideration of further commitments by Annex I parties, and that the AWG should aim to complete its work on time to ensure no gap between the first and the second commitment periods (although no timetable was determined for decisions on the level of reductions). The AWG will hold its second session at COP/MOP 2 where its future work plan will be elaborated.²

2. The UN System

A number of programs within the UN system play an important role in the achievement of climate change objectives, including the Global Environment

Facility (GEF) and its main implementing agencies: the UNDP, UNEP and World Bank. Climate change is also addressed by such agencies as the World Health Organization, World Meteorological Organization, UN Industrial Development Organization and the UN Institute for Training and Research.

The Commission for Sustainable Development (CSD) has taken on a more substantive role in addressing climate by reviewing progress toward the outcomes of Agenda 21 and the Johannesburg Plan of Action with respect to, *inter alia*, energy for sustainable development and climate change. The CSD offers an additional venue in which to develop an understanding of different perspectives and concerns on these critical issues, particularly in regard to developing countries.

3. The G8 and the Gleneagles Plan of Action

In 2005, the G8 leaders agreed to a communiqué that included a political statement, action plan and a future Dialogue on Climate Change, Clean Energy and Sustainable Development.³ G8 leaders agreed to work with the IEA to conduct research in priority areas for moving forward on climate change, and with the World Bank to investigate options for financing the transition to a low emissions future economy. The Gleneagles Ministerial Dialogue will continue in Mexico in October 2006, and will report on the process at the Japanese Summit in 2008. Global energy security was a central focus of the July 2006 St. Petersburg Summit, where the action plan committed to enhancing energy security through actions in key areas, including addressing climate change and sustainable development.⁴

While the G8 is not an official negotiating forum, it does play a significant role in building consensus and momentum on the path towards a post-2012 climate policy regime. The participation of Brazil, China, India, South Africa and Mexico (G8+5) in Gleneagles and Petersburg represented a broadening of participation and a wider spectrum of the global economy, providing an opportunity for the engagement of the major emitter countries in GHG emissions reduction.

4. The World Bank

The World Bank is developing an *Investment Framework for Clean Energy and Development* in the context of the Gleneagles Communiqué. A discussion paper outlining the framework was discussed at the spring 2006 meetings of the Development Committee, and a revised paper will be considered at the joint annual meeting of the World Bank and IMF in Singapore in September 2006. The framework aims to identify investment and financing policy actions to help further the goal of the UNFCCC, and assist developing countries in

meeting energy demands for economic growth and poverty alleviation in an environmentally sustainable manner.

5. The OECD and IEA

In the area of climate change, the OECD's goal is to help member countries achieve climate change goals in an environmentally effective and economically-efficient manner. Recently, the OECD decided to strengthen its work on the linkages between adaptation to climate change and international development cooperation. At a meeting of OECD development and environment ministers in April 2006, the ministers agreed to a joint *Declaration on Integrating Climate Change Adaptation into Development Cooperation*, including a decision to develop OECD guidance on integrating adaptation into development activities.⁵

The IEA provides policy advice to its 26 member countries to support their efforts to ensure reliable, affordable and clean energy. Its work involves climate change policy and energy technology collaboration, including the Climate Technology Initiative. The OECD and the IEA host the Annex I Expert Group to the UNFCCC, which includes consultations with developing country experts to discuss issues of mutual interest on the international climate change agenda.

The memberships of the OECD and the IEA, which are predominantly Annex 1 countries, collectively represent enormous economic weight. The organizations are well positioned to make significant contributions to the development of a post-2012 regime through discussions amongst members and consultations with developing countries.

6. The Asia Pacific Partnership on Clean Development and Climate

In 2005, Australia, China, India, Japan, the Republic of Korea and the United States announced the Asia Pacific Partnership on Clean Development and Climate (AP-6). The purpose of the partnership is to develop and deploy low-emissions technologies, not to set emissions reduction targets.⁶ The AP-6, described as a model for public-private collaboration, is intended to complement the Kyoto Protocol and to maintain the key principles of the UNFCCC.⁷ An inaugural Ministerial meeting was held in Sydney, Australia in January 2006. The first Task Force working meetings were held in the United States in April 2006 to develop action plans to encourage deployment of clean technology in eight areas: cleaner fossil energy; renewable energy and distributed generation; power generation and transmission; steel; aluminum; cement; coal mining; and buildings and appliances.

As the AP-6 is relatively new, it is difficult to assess its achievements or failures. If successful, AP-6 could greatly influence the global process for future climate change mitigation due to its geopolitical representation and technical and economic capacity. In particular two unique features, the partnership role of industry in the AP-6 framework and the sectoral approach in addressing greenhouse gas emissions, could be extremely useful in developing a post-2012 regime that more effectively reflects the complexity of actors involved in delivering on greenhouse gas emission commitments. As well, the AP-6 could offer lessons on the critical issues of technology transfer and international technology cooperation. Other countries, such as Canada, Mexico and Russia, have expressed interest in joining the partnership.

Endnotes

- 1 International Institute for Sustainable Development (IISD), 2006. Summary of the UNFCCC Dialogue on Long-Term Cooperative Action: May 15–16, 2006. *Earth Negotiations Bulletin*. Vol. 12, No. 297. May 17, 2006. Winnipeg: IISD.
- 2 UNFCCC, 2006. *Report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on its first session*, held at Bonn May 17–25, 2006. (FCCC/KP/AWG/2006/2, July 18). <<http://unfccc.int/resource/docs/2006/awg1/eng/02.pdf>>.
- 3 G8, 2005. *G8 Gleneagles 2005. Policy Issues: Climate Change*. <<http://www.g8.gov.uk/>>.
- 4 G8, 2006. *Global Energy Security*. <<http://en.g8russia.ru/docs/11.html>>.
- 5 OECD, 2006. *Declaration on Integrating Climate Change Adaptation into Development Cooperation: Adopted by Environment and Development Ministers of OECD Member Countries on April 4, 2006*. Paris: OECD. <<http://www.oecd.org/dataoecd/44/29/36426943.pdf>>.
- 6 Australian Government Department of Foreign Affairs and Trade, 2006. *Charter: Asia Pacific Partnership on Clean Development and Climate*.
- 7 US Department of State, 2006. *Asia Pacific Partnership on Clean Development and Climate*. Media note, May 1. <<http://www.state.gov/r/pa/prs/ps/2006/65549.htm>>.

Bibliography

Akasaka, Kiyo. 2005. *Climate Change and the OECD*. Speech to the high-level plenary session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, (Montreal, December 9).

Annan, Kofi. 2000. *We the Peoples: The role of the United Nations in the 21st century*, Millennium Report of the Secretary General, UN Doc. A/54/2000, April 3. <<http://www.un.org/millennium/sg/report/full.htm>>.

Arctic Climate Impact Assessment. 2004. *Impacts of a Warming Arctic*. Cambridge, U.K.: Cambridge University Press. <<http://amap.no/acia/>>.

Australian Government Department of Foreign Affairs and Trade. 2006. *Charter: Asia Pacific Partnership on Clean Development and Climate*.

Ayala, Francisco Aguayo and Kevin Gallagher. 2005. *Preserving Policy Space for Sustainable Development: The Subsidies Agreement at the WTO*. Thematic research paper produced for the Trade Knowledge Network. Winnipeg: IISD.

Barnett, Jon. 2003. "Security and Climate Change," *Global Environmental Change*, Vol. 13, Pergamon, pp. 7–17.

BBC News. 2005. *Ex-UN Chief Warns of Water Wars*. February. <<http://news.bbc.co.uk/2/hi/africa/4227869.stm>>.

Bernasconi-Osterwalder, Nathalie. "Trade and Environment: Where do we stand after Doha?" Paper presented at the conference *WTO's Contribution to Sustainable Development Governance: Balancing Opportunities and Threats*, Paris, October 21–22, 2005.

Brauch, Hans Günter. 2002. *Climate Change, Environmental Stress and Conflict*. AFES-PRESS Report for the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

Busse, Matthias *et al.* 2006. "The Institutional Challenge of EPAs," *Trade Negotiations Insights*, 5(3).

Carnaghan, Matthew and Allison Goody. 2006. *Canadian Arctic Sovereignty*. PRB 05-61E. Ottawa: Library of Parliament.

Challenor, P., R. Hankin and B. Marsh. 2005. "The Probability of Rapid Climate Change," a presentation made at conference: *Avoiding Dangerous Climate Change*, February 1–3, 2005, Exeter, U.K. <<http://www.stabilisation2005.com/day1/challenor.pdf>>.

Clarke, George R.G., Katrina Kosec and Scott Wallsten. 2004. *Has Private Participation in Water and Sewerage Improved Coverage? Empirical Evidence from Latin America*. Working Paper 04-02, AEI-Brookings Joint Center for Regulatory Studies.

Commission of the European Communities. 2006. *Green Paper: A European strategy for sustainable, competitive and secure energy*. {SEC(2006) 317}, Brussels, 8.3.2006, COM(2006) 105 final. <http://ec.europa.eu/energy/green-paper-energy/doc/2006_03_08_gp_document_en.pdf>.

_____. 2003. *Communication from the Commission to the Council and the European Parliament: Climate Change in the Context of Development Cooperation*. Brussels, 11.3.2003, COM(2003) 85 final.

Copeland, Brian R. and M. Scott Taylor. 2003. *Trade and the Environment: Theory and Evidence*. Princeton: Princeton University Press.

Corell, Robert *et al.* 2004. *Impacts of a Warming Arctic: Arctic Climate Impact Assessment*. ACIA Overview Report. Cambridge: Cambridge University Press.

Cosbey, Aaron. 2005. "Climate Change and Competitiveness: A Survey of the Issues." Background paper to an experts' workshop: *Climate Change, Trade and Competitiveness*, Chatham House, London, March 30, 2005.

_____. 2004. *A Capabilities Approach to Trade and Sustainable Development: Using Sen's Concept of Development to Re-Examine the Debates*. Commissioned by the Swiss Agency for Cooperation and Development. Winnipeg: IISD.

Council of the European Union. 2005. *Climate Change Medium and Longer-term Emission Reduction Strategies*, 7242/05, March 11.

Danish Energy Authority. 2006. *Continued Improvement in Energy Efficiency in Denmark*. <<http://www.ens.dk/sw33581.asp>>.

DFID. 2006. *Eliminating World Poverty – Making Governance Work for the Poor*.

Downs, Erica S. 2004. "The Chinese Energy Security Debate," *China Quarterly*, No. 177.

Dupont, Alan and Graeme Pearman. 2006. *Heating up the Planet: Climate change and security*, Lowry Institute, Paper 12.

Dutch Scientific Council for Government Policy (WRR). 2006. *Summary – Climate Strategy: Between ambition and realism*. <<http://www.wrr.nl/english/content.jsp?objectid=3526>>.

- Duval-Smith, Alex. 2005. "Arctic Booms as Climate Change Melts Polar Ice Cap," *The Guardian*, November 27.
- Europa. 2005. *EU and Africa – Towards a Strategic Partnership*. <http://www.europa-eu-un.org/articles/en/article_5499_en.htm>.
- European Commission. 2006. *Europe in the World – Some Practical Proposals for Greater Coherence, Effectiveness and Visibility*.
- European Commission. 2004. *A World Player – the EU's External Relations*.
- European Environment Agency. 2006. *Energy and Environment in the European Union: Tracking progress towards integration*. p. 11.
- _____. 2004. "Arctic environment: European perspectives. Why should Europe care?" *Environment Issue Report*, No. 38.
- EU. 2003. *A Secure Europe in a better world: European Security Strategy*. <<http://ue.eu.int/uedocs/cmsUpload/78367.pdf>>.
- Finger, Michael J. 2006. *Aid for Trade: How we got here and where we might go*. International Lawyers and Economists Against Poverty (ILEAP), Background Brief No. 10.
- Foreign and Commonwealth Office. 2005. *UK International Priorities – The FCO Sustainable Development Strategy*.
- G8. 2006. *Global Energy Security*. <<http://en.g8russia.ru/docs/11.html>>.
- _____. 2005. *G8 Gleneagles 2005. Policy Issues: Climate Change*. <<http://www.g8.gov.uk/>>.
- Godoy, Julio. 2006. *Global Warming, Not Just Heat Wave*. Inter Press Service, July 21.
- Greenspan Bell, Ruth. 2006. "What to do about Climate Change," *Foreign Affairs*, 85(3), p. 105.
- Hain, Peter. 2001. *The End of Foreign Policy?* Fabian Society, RIIA, Green Alliance.
- Hayward, Tony. 2005. "Global Energy Sustainability." *Business Today International Conference*. New York, November 25. <<http://www.businesstoday.org/hayward.htm>>.
- House of Lords. 2006. *The EU and Africa: Towards a Strategic Partnership*.
- Huebert, Rob. "Climate Change and Canadian Sovereignty in the Northwest Passage," *Isuma*, 2(4), Winter 2001.

- ICTSD. 2006. *EU Trade Chief Moots New WTO Round on Energy*. <<http://www.ictsd.org/weekly/06-06-28/inbrief.htm>>.
- Intergovernmental Panel on Climate Change (IPCC). 2001. *Climate Change 2001: Impacts, adaptation and vulnerability*. Contribution of Working Group III to the Third Assessment Report of the IPCC.
- IPCC. 2001. *Third Assessment Report, Synthesis: Summary for Policy Makers*. Intergovernmental Panel on Climate Change, United Nations.
- International Energy Agency. 2005. *World Energy Investment Outlook 2005*. Paris: IEA.
- International Institute for Sustainable Development (IISD). 2006. "Summary of the UNFCCC Dialogue on Long-Term Cooperative Action: May 15–16, 2006," *Earth Negotiations Bulletin*, Vol. 12, No. 297. May 17, 2006. Winnipeg: IISD.
- IISD/UNEP. 2005. *Trade and Environment: A Handbook* (2nd ed.). Winnipeg: IISD, (Chapter 4).
- International Scientific Steering Committee. 2005. *Avoiding Dangerous Climate Change*. Report of the ISSC to the International Symposium on the Stabilisation of greenhouse gas concentrations. Hadley Centre, Met Office, Exeter, U.K. February 1–3, 2005.
- International Strategy for Disaster Reduction. 2005. *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*. Report of the World Conference on Disaster Reduction, January 18–22, 2005, Kobe, Hyogo, Japan. <<http://www.unisdr.org/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf>>.
- Karas, J. and T. Bosteel. 2005. *OPEC and Climate Change: Challenges and Opportunities*. London: Chatham House.
- Karingi, Stephen *et al.* 2005. *Economic and Welfare Impacts of the EU-Africa Economic Partnership Agreements*. African Trade Policy Centre Work in Progress No. 10, Economic Commission for Africa, March.
- Lele, Uma, Nafis Sadk and Adele Simmons. 2005. *The Changing Aid Environment: Can Global Initiatives Eradicate Poverty?* Paris: OECD-DAC. <<http://www.oecd.org/dataoecd/60/54/37034781.pdf>>.
- Levin, Kelly and Jonathan Pershing. 2006. *Issue Brief: Climate Science 2005: Major New Discoveries*. Washington, D.C.: World Resources Institute. <http://climate.wri.org/project_text.cfm?ProjectID=228>.

- Klare, Michael. 2006. "The Coming Resource Wars," *The Energy Bulletin*, March 6. <<http://www.energybulletin.net/13605.html>>.
- Madslie, Jorn. 2005. *Global Warming: Help or hindrance?*, BBC News, October 27.
- Maurer, Crescencia. 2003. "Financing Carbon: Export Credit Agencies and Climate Change," *Transition from Fossil to Renewable Energy Systems: What Role for Export Credit Agencies?* Washington, D.C.: World Resources Institute.
- McIntosh, Arthur C. 2003. *Asian Water Supplies: Reaching the Urban Poor*. London: Asian Development Bank.
- McLeman, Robert and Barry Smit. 2004. *Climate Change, Migration and Security*. Commentary No. 88, Canadian Security Intelligence Service.
- Meteorological Services Canada. 2002. *Frequently Asked Questions about the Science of Climate Change*. <http://www.msc-smc.ec.gc.ca/education/scienceofclimatechange/understanding/FAQ/index_e.html>.
- Ministry of Foreign Affairs of Denmark. 2006. *Danish Development Policy*. <<http://www.um.dk/en/menu/DevelopmentPolicy/DanishDevelopmentPolicy/DanishDevelopmentPolicy>>.
- NASA Earth Observatory. 2006. *Record Low for June Arctic Sea Ice*. <earthobservatory.nasa.gov/Newsroom/NewImages/images.php3?img_id=16978>.
- NASA Goddard Institute for Space Studies Surface Temperature Analysis. 2006. *Global Temperature Trends: 2005 Summation*. <data.giss.nasa.gov/gistemp/>.
- National Oceanic and Atmospheric Administration. 2006. *NOAA Reviews Record-Setting 2005 Atlantic Hurricane Season: Active Hurricane Era Likely To Continue*. <<http://www.noaanews.noaa.gov/stories2005/s2540.htm>>.
- National People's Congress. 2005. *The Renewable Energy Law of the People's Republic of China*. Government of China. <<http://www.ccchina.gov.cn/english>>.
- Nohr, Henning. 2006. personal communication, July 2006.
- OECD. 2005. *Aid Rising Sharply, According to Latest OECD Figures*. Paris: OECD. <http://www.oecd.org/departement/0,2688,en_2649_34447_1_1_1_1_1,00.html>.
- _____. 2005. *Statistical Annex of the 2005 Development Cooperation Report*. Paris: OECD. <http://www.oecd.org/document/9/0,2340,en_2825_293564_1893129_1_1_1_1,00.html>.

Parry, Martin, Nigel Arnell, Tony McMichael, Robert Nicholls, Pim Martens, Sari Kovats, Matthew Livermore, Cynthia Rosenzweig, Ana Iglesias and Gunther Fischer. 2001. "Millions at Risk: Defining critical climate change threats and targets," *Global Environmental Change*, (11): 181–183.

Penny, Christopher. 2005. *Greening the Security Council: Climate change as an emerging threat to international peace and security*. Human Security and Climate Change Workshop, Oslo.

Purvis, Nigel and Joshua Busby. 2004. *The Security Implications of Climate Change for the UN System*. ECSP Report, UNEP.

Rogers, Paul. 2004. "Climate Change and Security," *Climate Change and Development*, IDS Bulletin, 35(3), pp. 98–101.

Schipper, Lisa and Mark Pelling. 2006. "Disaster Risk, Climate Change and International Development: Scope for, and challenges to, integration," *Disasters*, 30(1): 19–38.

Sindico, Francesco. 2005. "Ex-Post and Ex-Ante [Legal] Approaches to Climate Change Threats to the International Community," *New Zealand Journal of Environmental Law*, 9: 209–238.

Sobel, A. 2006. *Political Economy and Global Affairs*. CQ Press.

The White House. 2006. *The National Security Strategy of the United States of America*.

The White House. 2006a. *US-EU Summit Declaration: Promoting Peace, Human Rights and Democracy Worldwide*.

The White House, 2006b. *The National Security Strategy of the United States of America*.

The White House. 2006c. *US-EU Summit Declaration: Promoting Peace, Human Rights and Democracy Worldwide*.

UNCTAD. *World Investment Report 2005: Transnational Corporations and the Internationalization of R&D*. New York and Geneva: United Nations.

United Nations Economic and Social Council. 2006. *Commission on Sustainable Development: Report on the Fourteenth Session (22 April 2005 and 1-12 May 2006)*. Official Records, 2006, Supplement No. 9.

E/2006/29(SUPP). <<http://daccessdds.un.org/doc/UNDOC/GEN/N06/377/66/PDF/N0637766.pdf?OpenElement>>.

U.S. Department of State. 2006. *Asia Pacific Partnership on Clean Development and Climate*. Media note, May 1.
<<http://www.state.gov/r/pa/prs/ps/2006/65549.htm>>.

- _____. 2006. *US–EU Summit Progress Report on the Economic Initiative*. <<http://www.state.gov/p/eur/rls/or/68145.htm>>.
- _____. 2005. *US–EU Summit: Initiative to Enhance Transatlantic Economic Integration and Growth*. <<http://www.state.gov/p/eur/rls/fs/48342.htm>>.
- UNFCCC. 2006. *Report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on its First Session*. Bonn, May 17–25, 2006. (FCCC/KP/AWG/2006/2, 18 July). <<http://unfccc.int/resource/docs/2006/awg1/eng/02.pdf>>.
- Van Schaik, L. and C. Egenhofer. 2003. *Reform of the EU Institutions: Implications for the EU's performance in climate negotiations*. CEPS Policy Brief No. 40/September.
- Vaughan, Scott. 2003. *Privatization, Trade Policy and the Question of Water*. Les séminaires de l'Iddri no. 9. Paris: Institut de Développement Durable et des Relations Internationales.
- Vogler, John. 2005. "The European Contribution to Global Environmental Governance," *International Affairs*, 81: 4, July 2005.
- World Bank. 1994. *World Development Report 1994: Infrastructure for Development*. Washington: World Bank/Oxford University Press.
- World Trade Organization. 2005. *Reclaiming Development in the WTO Doha Development Round* (submission of Argentina, Brazil, India, Indonesia, Namibia, Pakistan, the Philippines, South Africa and Venezuela to the Trade and Development Committee). WT/COMTD/W/145, December 1.
- Young, Oran R. 2000. *The Structure of Arctic Cooperation: Solving Problems? Seizing Opportunities*, prepared for the Fourth Conference of Parliamentarians of the Arctic Region, Rovaniemi, August 27–29, 2000.

Climate change is one of the greatest challenges of this century. Increasing evidence of the impacts of climate change and that human actions are contributing to changes in climate highlights the need for action. There is an increasing realization in the international community that achieving the consensus and commitment needed to take action requires positioning climate change in a broader foreign policy context.

The ostensible goal of Western foreign policy is to provide stability and security as a foundation for human well-being, global freedom and prosperity. However, in today's increasingly inter-connected world, the traditional instruments of diplomacy are not always effective in tackling global threats. Established alliances and procedures are hard-pressed to be effective against a threat such as climate change, when the cause (greenhouse gas emissions) is not the ambition of any one "hostile" power. Addressing the climate change challenge requires new thinking in foreign policy—thinking that considers engagement on climate change not only in the sphere of environment, but also outside the environment box.

This study examines opportunities for a broader framing of the climate change issue in a number of foreign policy areas of the Ministry of Foreign Affairs of Denmark: diplomacy and international relations; energy security; peace and security; trade and investment; and development cooperation.

