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Managing climate change and promoting growth, development and equity.

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Lecture 5: Politics, policies and institutions: Building and sustaining a new international order for development, environment and justice.

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Six Part Structure

- Part 1: Political economy of change in key countries
- Part 2: Political economy of creating agreement
- Part 3: Political economy of finance
- Part 4: Role of business, NGOs and media
- Part 5: Role of international institutions
- Part 6: Political leadership nationally and internationally



Political economy of change in key countries

Country	Emissions 2010 (Gt CO ₂ e)	Emissions 2020 (Gt CO ₂ e)
China	9.6	11.4
USA	7.1	5.9
EU	5.4	3.9 - 4.5
Brazil	2.9	1.65 - 1.73
India	2.8	3.6
Indonesia	2.2	2.1
Rest of world	21.2	19.7 - 20.0
Total	51.2	48.2 - 49.2

Note: 2010 emissions are based on BAU forecasts that exclude country mitigation action since 2005 and the impact of the recession. They are used only to indicate scale of emissions from different countries. Bowen and Ranger (2009) assume total 2010 emissions (including the impact of the recession) of 47 Gt CO₂e. This should scale back the 2010 column by around 8%.

Indonesia 2010 emissions based on Climate Action Tracker estimate (<http://www.climateactiontracker.org>) and 2020 emissions only include the lower 26% reduction on BAU target (up to 41% with external financial support).

A range of emissions represents high and low intentions in 2020.

Source: Stern and Taylor (2010).



Political economy of change in China

- China has declared for the Copenhagen Accord a target of 40-45% reductions in emissions per unit of output 2005-2020, and other policies, taking China to around 11.4 billion tonnes of CO₂e emissions by 2020, on an 8% growth rate.
- More advanced and eastern municipalities and provinces, such as Beijing, Shanghai, Guangdong, Zhejiang, Jiangsu, have much lower emissions per unit of output than middle and western, such as Sichuan, Gansu, Shanxi (by a factor of around or more than 2:1).
- A number of research teams, e.g., the PECE at Renmin University, the Energy Research Institute (of the NDRC, the economics and planning ministry) and the Stockholm Environment Institute in collaboration with the China Economists 50 Forum, have prepared studies of possible emissions paths to 2050.
- The prevailing view is that it would be difficult for total emissions in China to peak before 2030, although the SEI/CE50 work does study much earlier peaks.



Political economy of change in China

- China's 11th 5-year plan has a target of a reduction in energy per unit of output of 20%, 2006-2010 (inclusive). In the first 4 years energy per unit of output has been cut by 15%. China emphasises that it has been necessary to close many high-carbon plants to achieve this.
- China's leadership (discussion with Premier Wen Jiabao on 22 March 2010 after the China Development Forum) indicate that China's emissions target for the Copenhagen Accord is (i) unconditional (ii) will have implementation measures embodied in the 12th 5-year plan (iii) may be exceeded.
- Some discussion about carbon markets and carbon taxation by policy makers.
- A 20% reduction in energy per unit of output and a 10% reduction in emissions per unit of energy would yield a 28% reduction in emissions per unit of output over a 5-year plan and close to 50% reduction over a decade.
- China's 12th 5-year plan, to be published this autumn, will be a landmark in China's progress to a low-carbon economy. There is an intense discussion taking place on the viability and investment and cost implications of a movement to low-carbon growth.



Political economy of change in USA

- Three US bills under consideration in the 111th Congress (see WRI website for a detailed comparison):
 - **Waxman-Markey** - the American Clean Energy and Security Act of 2009 (ACESA) - passed by the House of Representatives on June 26, 2009;
 - **Kerry-Boxer** - Clean Energy Jobs and American Power Act of 2009 (CEJAPA);
 - **Cantwell-Collins** - Carbon Limits and Energy for America's Renewal Act (CLEARA) - introduced December 11, 2009.
- These have a cap-and-trade scheme as a key element.
- Decision-making on key policies across the board in the US has been slowed by intense arguments between the main political parties particularly on health care reforms and support of the economic recovery.
- Policies on climate change, which had been making progress up until the summer of 2009 have therefore been delayed. Recent passing of legislation on health care is encouraging. May allow renewed focus on climate change legislation.



Political economy of change in USA

- Significant that the US submitted targets for the deadline of January 31st, 2010 for the Copenhagen Accord: 17% reductions 2005-2020, 30% by 2025, 42% by 2030 and 83% by 2050.
- These are conditional on necessary legislation being passed by Congress.
- If the cap-and-trade legislation does not succeed, there are other options (“Plan B”).
- This would include regulation of greenhouse gases through the Environment Protection Agency (EPA) and action via states, cities and regions within the USA.
- “Jobs” and energy security are key political issues: those who see the future in low-carbon growth point to its creation of employment and opportunity. Those who are opposed point to dislocation and lack of competitiveness. Potential opponents from coal states and oil industry.



Political economy of change in the EU

- EU has declared for 20% reductions 1990-2020 and 30% as part of a global and comprehensive agreement, provided that other developing countries commit themselves to “comparable” emissions reductions objectives and developing countries “contribute adequately”.
- It has been a leader in terms of targets, action and the European Union Emissions Trading Scheme.
- In the European Council of December 2008, there was an attempt to roll back commitment by Poland, Italy and others but commitment was maintained.
- The same arguments on costs and competitiveness are advanced by those who would wish to go more slowly.
- Europe was not as influential as it could have been at Copenhagen because it did not have a clearly defined spokesperson for Europe as a whole and did not have a flexible negotiating mandate.



Political economy of change in Brazil and Indonesia

- Brazil has declared for 36% to 39% reductions relative to BAU in 2020 and Indonesia 26% to 41% reductions relative to BAU in 2020, with the higher figures depending on external financial support.
- The bulk of the action would be via cutting back on deforestation. Brazil declared for 80% reductions in illegal deforestation by 2020 (based on the average illegal deforestation rate 1996-2005).
- The political commitment in Brazil seems strong across the political spectrum. President Lula steps down this year, but most parties committed. Implementation of plans to stop deforestation will not be easy.
- President Yudhoyono, was re-elected to a second five-year term last year and is personally committed to strong action on climate change. Implementation poses very severe problems.
- Both Brazil (e.g., via possible die-back of Amazon forest) and Indonesia (e.g., by sea-level rise – a nation of 17,000 Islands) are very vulnerable to climate change.



Political economy of change in India

- India will endeavour to reduce emissions per unit of output by 20-25%, 2005 to 2020.
- Plans are set out in 11th 5-year plan and in the National Action Plan on Climate Change (NAPCC).
- The NAPCC sets out 8 missions: solar, energy efficiency, sustainable habitat, water, Himalayan ecosystems, “Green India”, sustainable agriculture, strategic knowledge. These are a blend of action for both mitigation and adaptation.
- Particularly ambitious on solar with 2009 plans for 20 GW of solar power projected for 2020 and 100 GW by 2030 with plans for prices to match those from fossil fuels (not counting a carbon price) by 2030.
- India insists on its very low emissions per capita, its moderate emissions per unit of GDP, and the importance of looking at emissions per capita as a basis for equity.
- Some legacy of fixed-coefficients planning models and the worry about action on emissions slowing growth.



Political economy of change: overall

- The major emitters are all examining and preparing action plans for cutting emissions.
- The politics in the USA will be much influenced by China.
- The developing world is likely to insist on maintaining the distinction between binding commitments by rich countries and voluntary agreements by poor countries: the Kyoto framework of the Annex I and non-Annex I distinction.
- Discussions on ‘graduation’ from non-Annex I to Annex I are beginning in some countries, e.g., Chile, Korea and Mexico and even in China.
- “Monitoring, reporting and verification” will remain an issue, particularly in the USA which appears to believe that without very strict mechanisms there may be ‘cheating’ on counting of emissions.
- For developing countries, finance and technology sharing will be key issues.
- In all countries the growth potential of low-carbon growth will be a central issue.



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The structure and shaping of a global agreement

- Key elements of an effective, efficient and equitable global deal were set out in Lecture 4.
- They covered:
 - (i) emissions, global, rich and developing countries;
 - (ii) technology, deforestation and carbon markets;
 - (iii) finance; and
 - (iv) institutions.
- Agreement can be generated only if we make progress on:
 - (i) understanding low-carbon growth;
 - (ii) recognise the sense of injustice of developing countries and embody it strongly in an agreement; and
 - (iii) find a way of building a set of targets consistent with the world's carbon constraints.



Political economy of low-carbon growth

- The public and the leadership country-by-country have to be convinced that low-carbon growth is possible and attractive.
- The case for both must be made not only analytically, but also by demonstration.
- Many will require convincing that the dislocation arising from the adjustment from current patterns can be managed.
- Low-carbon growth is the only future growth story but we have yet to successfully articulate the low-carbon growth model of the future.



Political economy of injustice

- Dealing with the strong and understandable sense of injustice and inequity felt by developing countries is important if we are to reach an agreement.
- This arises from: (i) the majority of current concentrations arise from past emissions from high-carbon growth in developed countries; (ii) developing countries will be hit earliest and hardest by the impacts of climate change; (iii) the recognition that now, when they are striving to overcome poverty, they must find a different path to higher incomes.
- This will imply: (i) that most developing countries will insist on adhering for now to “common but differentiated treatment” and to Annex I versus non-Annex I division; (ii) strong finance and technology support; (iii) acceptable methods for funding country emissions plans consistent with global constraints.



Political economy of country targets and emissions rights consistent with global carbon constraints

- In Lecture 2 we examined various notions of ethics and equity in relation to emissions.
- There have been various modelling attempts to try to put various ad hoc notions of equity into models of the allocations of “emissions rights”.
- The ad hoc notions used in models include: (i) equal per capita; (ii) ‘grandfathering’, where existing emissions play a strong role with overall declines to meet targets; (iii) contraction and convergence (C and C), combination of (i) and (ii); (iv) equal cumulative emissions rights which takes into account all past emissions; (v) “the India proposal” whereby India’s per capita emissions would not exceed those of the average for developed countries; (vi) ‘Greenhouse Development Rights’, works with a capacity and responsibility defined relative to a development threshold. More explicit discussion may be found in the SEI/CE50 report.
- These principles are not very clearly founded in the basics discussed in Lecture 2 and lead to very different paths.
- My conclusion is that by involving a particular principle or combination of principles from the above any particular path could be justified.



Political economy of country targets and emissions rights consistent with global carbon constraints

- I would proceed by recognising that: (i) most notions of equity proceeding from the first principles outlined in Lecture 2 would assign very weak emissions rights, perhaps zero, to rich countries; (ii) country circumstances and opportunities vary greatly; (iii) the allocation of targets should not necessarily be treated as burden sharing; (iv) targets and rights are very different.
- From this I would suggest that an informal 'bottom-up' approach as in the Copenhagen Accord be used for targets with an institutional structure, such as over time, a WEO for negotiation to get targets consistent with constraints.
- Equity should come in strongly through commitment to substantial help with finance and technology sharing.
- The developing countries could place conditionality on finance and technology, together with strong and credible rich country targets, before agreeing to binding absolute caps.



Political economy of gaming

- Important to consider game-theoretic aspects relevant to sustaining an agreement over the long term. The simplest form of game theory sees participants in the international game focusing only on their narrow self-interests and making very simple assumptions about the behaviour of others, that is, if I cheat then others will continue to behave as before.
- In that narrow approach, the ‘free-rider’ problem looms large. In other words, one player assumes that: once an agreement is established he can cheat and save money by not cutting emissions as promised; that the others will be more responsible and maintain their efforts; and he will not suffer very much from the extra emissions he has made.
- There are three problems with this simple version of the free-rider story; if one player cheats then others may withdraw from the agreement with large consequences for emissions; irresponsible players may be excluded from new lucrative markets; and many players will look beyond narrow self-interest and worry about collective consequences.



Political economy of responsibility and trust

- Responsibility and trust are key components in creating and sustaining a deal.
- Many people in many countries understand the meaning of responsible behaviour on climate change, and demand that their politicians and decision-makers follow standards of responsibility.
- They are prepared to challenge or vote them out of office if they fail to meet these standards, and to support them if they act responsibly (e.g., John Howard's rejection in Australia and Governor Arnold Schwarzenegger's re-election in California).
- Trust comes from understanding other government's commitment to the interest of their people, both current and future, from its sense of a world community, and institutional structures within countries, (e.g., China's 5-year plans, UK's climate legislation).



Political economy of 'binding agreements'

- There is much talk of a 'legally binding international agreement' but a definition of what this means is problematic.
- Does it mean that if an agreement is broken the Prime Minister goes to jail? Which Prime Minister (5 years ago or now)?
- Financial penalties? How will they be administered – a police force, from another planet? And note that no penalty has been placed on e.g., Canada for breaching its Kyoto legally binding agreement.
- Better to see 'binding' as first to the people of the country in question who may insist on adherence.
- Second, international relations cover many different dimensions and irresponsibility on climate may lead to worse treatment on other dimensions.



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Political economy of finance

- The Secretary General of the UN has established a High-Level Advisory Group to suggest practical proposals for new resources for financing for mitigation and adaptation strategies in developing countries, to raise \$100 billion p.a. by 2020.
- In the past, rich countries and financial institutions have imposed conditions on the developing world in exchange for financial aid.
- But finance for mitigation and adaptation has a different logical and ethical basis from aid:
 - This problem arises in large measure from past actions by rich countries.
 - Financing emissions reductions in developing countries is of benefit to all countries; the emissions reductions are a public good.



Political economy of finance

- Patterns of spending the money flow from these arguments and may influence willingness of countries to provide finance.
- The figure of \$100 billion p.a. is on the low side: there is a strong case for \$200 billion p.a. (see Lecture 4), with around \$100 billion p.a. for each of mitigation and adaptation. It already embodies a political compromise.
- By choosing a figure and then suggesting a number of possible sources, the discussion is then in terms of the best combination of sources, subject to clear criteria for raising the resources (or the “least-bad”). The criteria include revenue, reliability of revenue, incidence/equity, efficiency, administration, etc., i.e., the usual criteria for public finance. The political advantage of this approach compares with examining proposals one-by-one: they are all likely to be rejected one-by-one.
- New sources as an advantage for developing countries concerned with “additionality” and for rich countries with highly constrained public budgets.



Political economy of finance

- The mechanisms for spending money will influence the ability to raise it: “donors” would clearly wish it to be spent wisely.
- Spending via existing development institutions such as the Regional Development Banks likely to generate confidence from both developed and developing countries.
- But UNFCCC will have to ‘recognise’ the new resources as part of an agreement if they are to be seen as contributing to an agreement.
- Thus some method in which the UNFCCC has a role, for allocating across regions, sectors, activities, will be likely to be necessary.



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Role of business, NGOs and media

- Because of the huge market failure from emissions government policy must play a strong role in guiding markets. Public infrastructure investment is vital too.
- But it will be private investment that will be the main driver, from small households and farms to the biggest companies.
- Those who invest can help governments understand the problems investors face. Many civil servants and politicians have little experience of entrepreneurship and investment.
- Many business people argue for policies which are TLC: Transparent, Long-term, Credible.
- Business organisations such as the Climate Action Partnership in the USA, the Confederation of British Industry in the UK and the Confederation of Indian Industry in India, have advocated clear and strong policies on climate change and emphasised the great opportunities.
- And business can play a very important role by creating strong examples of low-carbon and energy saving action.



Role of business, NGOs and media

- Some business intervention is not so clear and positive. Some US companies, in particular Exxon Mobil, were very active during much of the Bush administration in lobbying to slow down or avoid action on climate change, either directly or by funding climate-sceptic think tanks. Exxon Mobil has since dropped its support for two controversial think tanks.
- Other businesses argue climate policy will hurt their competitiveness, e.g., BMW and Mercedes - the German government has tried to delay and weaken tougher car emissions standards in the EU.
- See David Michaels book “Doubt is their product” on how vested interests can work to undermine science they find inconvenient (Oxford University Press 2008).
- On the whole however, business has been ahead of government in looking to the long term for the analysis of policy options, risks and opportunities (see Lecture 3, ‘Searching and finding’).



Role of business, NGOs and media

- NGOs can provide an organised voice for future generations and the environment so that impacts in the future find political voice now.
- NGOs can pressure governments and business to establish climate policy frameworks and hold governments and business accountable for their actions.
- International pressure groups such as Friends of the Earth, the World Wildlife Fund (WWF) and Greenpeace have been active for many years. The Environmental Defense Fund is one of the largest and most effective NGOs in the USA, working closely with businesses and with governments at all levels. The World Resources Institute (WRI) is a key source of analysis and data: main source of structured emissions analysis.
- Some NGOs are now forming alliances with various sections of society, e.g., the WWF is working with global businesses to promote efficiency and cut emissions under the Climate Savers programme.
- The WRI helps show in a practical and analytical way how business and government can take effective action.



Role of business, NGOs and media

- The media, newspapers, radio, television, web and so on have a significant responsibility in presenting evidence in a measured and careful way.
- This is a difficult issue to understand since we have (i) to think a long way ahead (ii) to analyse risk management. People often find difficulty in the long-term and in risk and can be very inconsistent.
- Direct experience of damage such as wars or pollution provide a very limited guide: depends crucially on analysis.
- Recent events have highlighted the serious damage that can be done when the media focus on 'theatre' or fail to understand or present the arguments in a way that helps the public understand the role of evidence or a line of argument in an overall policy judgement.
- For example, the University of East Anglia email affair and the mistake on the rate of melting in Himalayan glaciers in the IPCC 4th Assessment Report has been used to suggest overall arguments are weak when the new evidence is minor in relation to the overall story.



Role of business, NGOs and media

- Some of the media that tries to be ‘responsible’ sometimes sees balance in terms of ‘two sides of an argument’. But whilst we should not prevent the argument that “the earth is flat” from being made, we should not present it as having equal status to “the earth is three dimensional and spherical”.
- The challenge of communication is not easy because of the long-term and risk management nature of the problem: academics have a duty to try to express the complexities in as simple a way as possible to foster rational policy judgement.
- Given that this area is politically charged it is still more important that academics have the duty to be transparent and open.
- Many academics are not trained or experienced in public policy discussion. When decision making is urgent and the consequences are so large there is a duty to be involved and to learn how to be effective.



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Role of international institutions

- Successful policy implementation will require an effective institutional structure.
- In the short term we will have to make use of existing structures: institution building takes time.
- The climate change capabilities of UNEP, UNDP, UN, OECD, and the IEA are all valuable and can be extended. The IUCN has much to contribute on biodiversity.
- International financial institutions such as the World Bank, IMF, and the regional development banks can be at the forefront of financing and fostering investments and pilot projects in clean infrastructure and in developing approaches to, and in providing funding for, reduced deforestation.
- The development banks can play a powerful role in promoting adaptation and developing new carbon “funding windows”. The UNDP and UNEP can help build new capacity and promote understanding. The OECD has a strong policy and analytical capability.



Role of international institutions

- Trade has a vital role to play.
- We should avoid green protectionism. Important to examine the evidence: the extra costs of going low-carbon are moderate and there is little evidence of strong “environmental mobility” in response to environmental regulation (see Stern Review).
- “In the Marrakesh Agreement (1994) establishing the WTO, members established a clear link between sustainable development and disciplined trade liberalisation” (WTO).
- In the ongoing Doha Round of trade negotiations members are aiming to reduce tariffs and other non-tariff barriers in environmental goods and services: could improve access to technologies and expand world trade.
- Despite the difficulties experienced during the Doha negotiations to date, priority should be placed on a successful conclusion to the negotiations on environmental goods and services.



Role of international institutions

- If John Maynard Keynes and Harry Dexter White were sitting down now to design the key international institutions, instead of in Bretton Woods in 1944, they might end up with a different three:
 - A combined World Bank and IMF;
 - A WTO; and
 - A World Environment Organisation.
- Must ask whether taking forward an agreement on climate change, given our other environmental challenges as a world, requires the support of a new organisation.
- While reaching agreement is urgent and actions and collaboration will have to be supported and sustained initially by existing institutions, the magnitude of the challenges we face, the new functions which will be necessary, and the importance of policy coherence across a whole range of environment and development issues, will require a new institution within the next 5-10 years.
- Its range of tasks and responsibilities in relation to climate could include the following:



Role of international institutions

- Development and support for countries in designing and implementing targets, intentions and plans;
- The reform and design of a new and more extensive CDM mechanism including the administration of the trading element of any cap-and-trade system;
- The creation of systems to supervise, monitor and verify delivery against commitments including any pilot global sector agreements;
- The emerging forestry carbon regime;
- The coordination and rules of financing mitigation and adaptation activities (as advanced by the High-Level Advisory Group);
- Change-related science and low-carbon technology development;
- The development of an improved and joined-up understanding of the potential local risks from climate change and the responses as they develop;
- The development of processes for dispute resolution;
- The examination and proposal of coherent links concerning other global challenges, including development, trade, water, biodiversity, food and energy - relations with other international institutions will be important.



Role of international institutions

- It would be possible to run some or many of these activities through existing institutions. However, a new institution has a number of advantages.
 - It places a clear and primary responsibility for climate change in one organisation which is important for coherence;
 - No risk of climate change being put on hold for other pressing short-term issues;
 - Easier to create a new system of accountability which is transparent and has a modern governance structure (easier to design a new system less prone to ‘turf battles’ and wasteful overlaps).
 - A modern structure will be more able to respond to rapid and strong learning challenges while retaining long-run frameworks.
 - Environmental issues such as water, forestry, biodiversity and climate change are intertwined.
- Governance of this new organisation will be key. In the 1940s much of the world was colonised and a small number of rich countries dominated. A new organisation must have a modern governance structure and with rights to shape and determine decisions which reflect the rights and responsibilities of all people and countries.



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Political leadership nationally and internationally

- The basic elements of the road ahead are clear. We know the policies required, the scale of the actions we must take and the technologies required.
- The key obstacle is the political will: do we, together, have the wisdom and collaborative spirit to take, and deliver on, the necessary decisions?
- We need political leadership which is not only thoughtful and measured but also courageous and inspirational, at both the national (domestic climate policies) and international level (global agreement).
- That leadership must set out the compelling scientific and economic case for strong action. It must show not only the severe dangers of unmanaged climate change, but also that if we act sensibly and strongly, starting now, we can dramatically reduce those risks at reasonable cost.



Political leadership nationally and internationally

- The story of strong action should not be only about targets, feasibility and cost. There is an exciting story of investment, opportunity and growth.
- That the transition to low-carbon growth, and low-carbon growth itself, is very attractive, for the reasons emphasised in this course, is an argument that must be won. It is only in part analytical. It also requires demonstration by example.
- The design and implementation of examples can be done at the level of the farm, the village, the town, the city, the province, the country or the region.
- It can also be done by firms, industries and sectors. Often firms and sectors will have to collaborate on practices. Governments can do much to help.
- As President Clinton said at the Democratic Convention which formally selected Barack Obama as Democratic presidential candidate, we should show "the power of our example, not the example of our power."



Political leadership nationally and internationally

- That leadership must be courageous too in confronting the narrow interests which will make a lot of noise and argue for postponement of action, or in some cases for little or no action. It is a time for clarity and strength in both vision and action.
- But it is not simply a matter of clarity and courage in dealing with vested interests. Change does involve dislocation whether it is in the inefficient energy wasteful provinces of China's centre and west, the coal states of the USA, some of the large energy users in German manufacturing, or the car industries of the world.
- A transition to a new way of doing things must be managed not only in terms of industries or activities that must change and contract and the movement of workers, but also in helping manage and share the risks of major new investments.
- Politicians may be tempted by electoral cycles to take a narrow, short-run view: the gains from a well-managed climate appear later. That is why the positive story of low-carbon growth is important as is political pressure from people who are concerned about the risks to our future.



Political leadership nationally and internationally

- This is indeed an inspirational story but it is also a practical story – indeed, the *only* practical story. We have a short window of opportunity to turn it into a reality.
- While it is time for leadership, we must all support and contribute to the creation of this reality, whether we are from the world of university and policy analysis, investors in the new opportunities or people who will change the way we consume.
- We know what we have to do; the prize is enormous. The Copenhagen Accord was a positive platform for advance but we must do more and move urgently.
- The leaders of the world will determine whether we can create and sustain the international vision, commitment and collaboration which will allow us to reach a global deal on climate change at COP16 in Cancun, Mexico in late 2010. The people of the world can create the political environment in which they make wise choices.

