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### Important Points to Remember:

**1992 – Rio Summit:** Signing of the United Nations Framework Convention on Climate Change (UNFCCC); to date it has been ratified by 192 countries. First objective is to eventually stabilise greenhouse gases based on a principle of collective obligations, however distinct, according to the respective capabilities of the parties involved, emphasizing the role of developed countries in the fight against global climate change. Its measures are non-binding.

**1995- COP 1, Berlin:** First session of the Conference of the Party. The Berlin Mandate established a two-year evaluative phase to discuss the individual options available for countries in order to honour the Conventions' commitments.

**1997 – COP 3, Kyoto:** The Kyoto Protocol is adopted. Today it has been ratified by 176 countries, and 36 of them have committed to globally decrease their greenhouse gas emissions by 5% in relation to 1990 levels between 2008 and 2012. Developing countries do not have to meet reduction requirements, but must participate in the global effort through voluntary actions.

**2005- COP 11, Montreal:** The first Meeting of the Parties (CMP 1) takes place at the same time. The Montreal Process is launched in order to prepare for an extension of the Protocol beyond 2012.

**2007- COP 13, and CMP 3, Bali:** The Bali Conference leads to a roadmap for a new climate protection agreement to follow the Kyoto Protocol.

**2009- COP 15 and CMP 5, Copenhagen:** Planned adoption of a new climate protection agreement.

Working Towards a Future Agreement: the challenges ahead

### The Kyoto Protocol: A First Step

The Kyoto Protocol has enabled numerous countries to commit themselves to environmental policies and the implementation of regulations in industries that are heavy emitters of greenhouse gases. January 1<sup>st</sup>, 2008 marked the start of the Protocol's first phase, which will end in 2012. However, according to the IEA *Business As Usual* scenario (WEO 2007), CO<sub>2</sub> emissions could still rise to 42 Gt by 2030 and 62 Gt by 2050. By contrast, the IPCC aims at a 15-20 Gt of CO<sub>2</sub> emissions by 2050.

### Bali Conference Results

The Bali Conference enabled tangible advances in developed countries' responsibilities as well as necessary commitments by developing states. For the first time, the US recognized the importance of developed countries recognizing quantifiable emission limits and measurable and verifiable reduction objectives. Also for the first time, developing countries expressed their will to reduce the growth of their emissions and are ready to formulate concrete actions that will allow them to adapt to the impacts of climate change. As a first consequence, the Bali roadmap led to the consideration of negotiations over differentiated rules for Annex 1 versus other countries.

But these results are fragile. Since the Berlin Mandate in 1995, non-Annex 1 countries have been exempt from reduction requirements that would have hurt their economic development. They are now willing to modify the inflexion

of their emissions' curve but they expect strong commitments by developed countries, notably the US. The prospect of an American administration that is more open to environmental concerns allows for speculation that efforts to put a price on carbon and/or mandatory legislation designed to curb greenhouse gas emissions are now possible and not too far off. A Congressional consensus still needs to materialize. Even if circumstances are more favourable, progress is slow and the Copenhagen Conference will take place only a few months after the new administration takes over. Often hostile to regulations imposed by external organisations, Congress could hold back the will of an administration that is concerned with becoming a leader in the international community in combating climate change.

It is thus a matter for the committed parties of the Kyoto Protocol to create the conditions necessary for the US (but also China and India) to adhere to a mutual agreement more inclusive, notably by concentrating their efforts on short and medium-term strategies. Without this, the United States could direct itself in a radically new direction, far from the Kyoto framework. This would be particularly disappointing for Europe, who could not satisfy its needs through the development of new mechanisms, as they would be incompatible with the instruments already in place.

### **The Fight against Global Climate Change: main actors outlook**

Europe, being a champion of Kyoto, is a major and influential actor within the international community on the subject of climate change. Last March the European Council adopted ambitious commitments: to improve energy efficiency by 20%, to increase the amount of renewable energies – besides nuclear - in their energy mix by 20%, and to reduce greenhouse gas emissions by 20% in relation to 1999 levels – 30% if other industrialized countries would agreed to the same objectives – by 2020. But while it is even questionable whether Europe will reach the objectives laid out in the Kyoto Protocol to reduce emissions by 8% in relation to 1990 levels, the ability to achieve these objectives for 2020 is more uncertain. To get across its message, Europe must prove to be credible and must pay close attention to the legitimate concerns of other actors, without which it will lose its leadership role that up until now has been uncontested.

Amongst the principal actors, the US role, as we have seen, will be determinant. In his most recent State of the Union address, in spite of the President's phrasing signalling an evolution on climate change, George W. Bush repeated the necessity of developing countries' involvement, in particular China,<sup>1</sup> who became the number one greenhouse gas emitting country, ahead of the US, in 2007. Both candidates to the American presidential election support this stance. It is possible that the US could eventually participate in an extension or version of the European Trading Scheme (EU ETS) put in place in Europe, as industries in the US and in Australia today appear to be favourable to such a scheme. The US however will refuse to participate in a system that does not include a maximum price limit for a ton of CO<sub>2</sub> so as to reassure investors. The European system is not planning for this type of condition.

Engaging Russia, which is often overlooked, is crucial as its own economic growth increases and its growing fossil fuel exports strengthen its role in global energy markets. Russian sensitisation to combating climate change is all the more important for respecting the commitments of the Kyoto Protocol. To do this it must simply stabilize its CO<sub>2</sub> emissions in relation to 1990. Since following the fall of the USSR these emission levels fell dramatically, Russia finds itself with large quantities of emission permits, or 'hot air,' which could have an impact on the CO<sub>2</sub> market. There are numerous ways to get Russia interested in these issues. Improving energy efficiency is one way and would release more gas for export. Also, reducing gas flaring and improving district heating could lead to significant emission reductions and greater gas availability.

It is necessary to reassure oil-exporting countries that view environmental concerns as a threat to markets for their principal economic resource and for whom security of demand is primordial. However, oil remains a necessary energy for industrial development, one that cannot be easily substituted in transportation fuels. A decrease in the absolute value of global demand is not likely in the medium term. Stronger GHG abatement commitments on the part of OPEC countries depend on taking the economic interests of these countries into account such as developing cooperation in energy efficiency and sensitisation to the effects of climate change: consequences for agriculture and water resources, particularly in Indonesia, could be especially severe.

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<sup>1</sup>"This agreement will be effective only if it includes commitments by every major economy and gives none a free ride." State of the Union address, January 28, 2008.

It is important to take the objections of the large emerging countries into account, who refuse to be held accountable for the past development of industrialized countries. The rapid development of electricity production in China and India uses mostly coal, which will remain a crucial element in the energy mix of these countries in view of the large quantities they possess and the relative cost of coal. Nuclear development, renewable energies, and carbon capture and storage are all part of the solution. Above all, it is necessary to redefine the objectives of emission reductions. Brazil and also Africa, have proposed committing to target results, instead of the system of binding commitments that is in place for industrialized countries.

An international agreement must also redefine aid strategies for international development, which should integrate policies aimed at combating climate change. This is all the more true for the poorest of countries who are often forgotten during these negotiations and are the first impacted by climate change. History has shown how difficult this is: lack of infrastructure and their economic situation make these countries unattractive to investors. Global environmental concerns should be the catalyst for new North-South cooperation.

Finally, states are not the only actors involved in the fight against climate change, as was shown at Bali by discussions held beyond the official meetings between financiers, economists, and industry representatives on the possibility of bridging the gap between industrialized and industrializing countries. It is often forgotten that it is industry that develops new technologies, that is able to increase energy efficiency, that makes the necessary investments available, and that it is the large industrial groups that are the signatories to important international contracts. An approach by sector for emission reductions is desirable. Such an approach would limit the impact that increased production costs – influenced by carbon prices – have on the competitiveness of certain European industries, notably steel and cement. Industry also needs a regulatory framework to trigger the investments needed.

**Moving Towards a Future Agreement:** *A worldwide dialogue of course, but one that must include discussions between the principal emitter countries*

Despite the advantages of a global approach, the divergent interests of too many actors can well lead to a multiplication of compromises and a dilution of objectives. Dialogue reduced to just several countries, grouping the industrialized and developing countries that are the biggest emitters would add value in creating more ambitious concrete commitments with significant global impacts – an idea tested by President Bush's Major Economies Meetings.

An approach with the unique goal of reducing emissions that does not include strategies for developing clean technologies is destined for failure. The question of technology maturity is crucial. Promising technologies such as CCS (Carbon Capture and Storage) or generation IV nuclear have still a long way to go before they reach the market deployment stage. Clearly it is necessary to encourage research and development resulting in large scale prototypes. This calls for different types of approaches and has to be separate from technologies already commercially available. Nevertheless, CCS must be developed substantially since coal will remain an important part of energy mixes, including USA, China and India. On another hand, technology transfer to developing countries, especially such involving high technology projects should include a strong focus on protection of intellectual property rights.

A new agreement should include numerous measures that go beyond the current limits of the Kyoto Protocol, and it will inevitably be multifaceted. To summarise most of the issues that have been raised during this workshop, architecture for a post-Kyoto agreement should :

- engage all stakeholders, especially industries,
- set short term targets emissions that could to permit evaluation within political cycles (2013 instead of 2020),
- force the issue of demonstrating and deploying Carbon and Capture Storage (CCS)
- encourage innovation and research & development while protecting intellectual property rights,
- bring energy prices progressively in line with costs and consider reformulation of social policies in countries where lowered energy prices are used to redistribute wealth,



Ifri would be predisposed to hold special seminars gathering various stakeholders – producers, energy intensive industries, - to inform policymakers in view of the COP-15 in Copenhagen. Thomas Becker, Deputy Permanent Secretary at the Danish Ministry of Climate and Energy, was clearly in favour of such an initiative.

A world without carbon limits is not an option. Many consider that the struggle against climate change is a problem between present and future generations. But the negotiations up to now have shown that it is in fact an issue between current generations, coming from all corners of the planet: in Europe, in the US, in China or India, and in Russia. The Kyoto Protocol is the only international framework that links developing countries to emission reductions and the first binding regime. Participating parties have one year from now to reinterpret its design and to begin differentiated actions that will facilitate broader integration, in particular the US, but also the large emerging states and developing countries, while developing synergies between the environment and economic development.