The First Brussels Climate Change Conference Organized by the Centre for European Studies (CEPS) and European Union Conferences, May 20-21, 2003.
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Subject : EU emissions trading and the emerging international climate change regime: Making emission reductions happen.

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Table of Contents

INTRODUCTION

Climate Change is considered to be one of the greatest environmental threats challenging the world today. Small island states like St. Lucia are particularly vulnerable and will bear the brunt of the environmental impacts with subsequent knock-on economic and social impacts. The phenomenon of climate change has emerged largely as a result of the industrial related activities of the wealthy, developed northern states (i.e. North America and Europe). This meeting presented an opportunity to sit in on European Union government and industrial sector discussions on progress made and challenges faced by Europe in meeting its obligations under the United Framework Convention on Climate Change (UNFCCC) and its related Kyoto Protocol. This report is an attempt to summarize the European Union's current policies and where possible highlight potential opportunities that exist for small island states like St. Lucia as Europe endeavours to reduce emissions.

BACKGROUND

The science behind the climate change is increasingly rigorous and the findings to date clearly indicate the need to shift from the "business-as-usual" scenario. Scientific studies reveal that since the Industrial Revolution with the burning of coal, petroleum and natural gas there has been a marked and steady increase in the amount of "greenhouse gases" (GHG's) in the atmosphere. Studies indicate a direct correlation between human industrial activity and the increase of pollutants. The greenhouse gases consist mainly of carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), all of which are naturally occurring gases in our atmosphere. The problem is that human industrial related activity is changing the balance or ratio in which these gases naturally occur which is then producing a warming trend. The warmest decade on record is the 1990's and the warmest year was 1998; 2002 was the second warmest. Average global temperatures are expected to increase by 1.8- 6ºC between 1990-2100. The average global sea level is projected to rise by 9 to 88 centimetres between 1990 and 2100.The destruction of forests, one of the earth's natural means of carbon sequestration, adds further pressure to the system. If the current rate of activity continues unchecked, the atmospheric level of CO_2 is expected to double in the twenty first century.

What does this mean to us? The global atmosphere is a very complex system and the extent of repercussions is not fully understood. However, changes are predicted for wind and rainfall patterns, sea-level rise, increase in hurricanes frequency and intensity. The Caribbean region is already challenged by growing socio-economic problems and such environmental challenges add pressure to our limited resources and capabilities.

Given the global environmental risk, in 1992, at the United Nations Conference on Environment and Development (UNCED), the UNFCCC was agreed upon. To date, 186 countries including St. Lucia have ratified the Convention and the treaty took effect on March 1994.

CONFRONTING CLIMATE CHANGE

What has happened since 1994? How is the threat of climate change being addressed? The GHG increasing trend is fuelled primarily by the activities of the wealthy industrialized nations (i.e. North America and Europe), yet the most vulnerable nations are the developing states of the G77 that includes small island states like St. Lucia. The industrialised North has been saddled with the responsibility of reducing their emissions. To operationalize the UNFCCC, the Kyoto Protocol was outlined in 1997. To date 107 nations have signed the Protocol. The most important aspects of the Kyoto Protocol is its legally binding commitments for 39 developed nations to reduce their GHG emissions by an average of 5.2% relative to 1990 levels. These emission reduction targets must be achieved by 2008-2012, what is termed the "first commitment period". The developed countries with emission reduction targets are called Annex 1 countries, whereas those without targets are the non-Annex 1 countries (IIED 2002).

Flexibility Mechanisms

The Kyoto Protocol allows developed countries to reach the emission reduction targets in different ways through 'Flexibility Mechanisms'. These include: ***Emissions Trading*** (trading of emission allowances between developed nations); ***Joint Implementation*** (transferring emission allowances between developed nations, linked to specific emission-reduction projects); and the ***Clean Development Mechanism*** (CDM).

The Clean Development Mechanism is the only Mechanism that involves developing countries. It allows developed nations to achieve part of their reduction obligations through projects in developing countries that reduce emissions or 'fix' or sequester CO_2 from the atmosphere.

The CDM has two key goals;

- To assist developing countries who host CDM projects to achieve sustainable development;

- To provide developed countries with the flexibility for achieving their emission reduction targets, by allowing them to take credits from emission reducing projects undertaken in developing countries.

The greenhouse gas benefits of each CDM project will be measured according to internationally agreed methods and will be quantified in standard units, to be known as ***'Certified Emission Reductions'* (CERs).** These are expressed in tons of CO_2 emission avoided. When the Kyoto Protocol becomes operational (pending ratification by Russia in 2003-2004), it is anticipated that these 'carbon credits' will be bought and sold in a new environmental market; they are already becoming a commodity.(IIED, EcoSecurities, ECCM 2002).

FIRST BRUSSELS CLIMATE CHANGE CONFERENCE

This conference is expected to become an annual forum for Europe to examine its progress in meeting its obligations under the Kyoto Protocol and the UNFCCC. Participants at this conference represented policy makers and leading industrialists all conscious of the pending legal obligation period and the Emissions Trading Directive issued under the European Parliament. The European Parliament has taken on the mantle of leadership in its effort to meet emission reductions, particularly with the withdrawal of the United States (the greatest GHG polluting source) from the Kyoto Protocol. Europe is struggling to cope with the substantial implications and the opportunities this vacumn presents. One thing appears certain, Europe is resolute in meeting emission reductions. At stake is deciding on cost effective means to achieve their targets, which sectors of their economies are expected to be impacted, the need to remain industrially competitive in an environment where their USA industrial competitors are not under any obligations to reduce emissions. The EU industrial sector is aware that they will most likely be subjected to imposed industry-specific emission targets and is lobbying for control over the EU Parliament’s approved CC mechanisms.

EUROPE’S CURRENT STATE

The following presents a summary of a presentation by Margot Wallström, member of the European Commission responsible for the Environment.

The Commissioner noted that in terms of emission reductions for 2001 presented a “worrying picture” for Europe. While there was a positive element, in 2001, the EU's greenhouse gas emissions were down by 2.3 per cent as compared to 1990 indicative of progress towards Europe’s 8 per cent emission reduction target under the Kyoto Protocol.

However, she noted that the trend is going in the wrong direction. Europe had moved away from its target in 2001 given that emissions were 1 per cent higher in 2001 than a year earlier. The analysis indicates that this was partly due to weather conditions: The winter that year was particularly cold, and rainfall was less which led to less electricity production from hydropower and more from fossil fuels. Yet, 2001 was the second year in which emissions went up. In 2000 emissions stood 0.3 per cent higher than in 1999. She went to state definitively that in 2013, the EU will not be able to excuse itself for not meeting Kyoto commitment by referring to a series of cold winters or dry summers.

Wallström stated that 10 of the 15 Member States are way off track in reaching their EU burden-sharing target. While Ireland for example is required to limit its emissions increase to 13 per cent by 2008-2012, its emissions had grown by 31 per cent by 2001. And while Austria should cut its emissions by 13 per cent it actually increased them by nearly 10 per cent. The fact that the EU as a whole reduced its emissions is only due to the substantial cuts achieved in Luxemburg, Germany and the UK.

Wallström continued to note strides made by the European Climate Change Programme and its assistance to the Commission to put forward important proposals, some of which have already been agreed by Council and the European Parliament (e.g. Directives on energy efficiency in buildings and on the promotion of bio-fuels). The ECCP provides a forum for other stakeholders such as industry and NGO's to get involved. Commissioner Wallström viewed the European Climate Change Programme as providing a cost-effective strategy to reach the EU's Kyoto objective. She noted that emissions trading is the centrepiece in this cost-effective policy mix and anticipates that trading should start at the beginning of 2005. Wallström in her appraisal recognized the leadership role for the EU Council and Parliament in trying to finalise appropriate legislation quickly but acknowledged that scepticism exists among those in the business sector who feel that combating climate change goes against business interests.

Wallström viewed the overall message of the European Climate Change Programme (ECCP) as a positive one pointing out that there are more than sufficient cost-effective measures with the potential to reach EU's Kyoto objectives. She credits the lack of major reductions by many Member States to the fact that the measures developed under the ECCP are yet to be implemented. Of even more concern was whether such measures will produce the estimated emission reduction effect. She recognized the need to monitor the effectiveness of the measures finally adopted. While Community policies are expected to help the Member States in meeting their burden-sharing targets, they are expected to adopt their own policies as well. They remain legally bound to meet their burden-sharing targets. When it comes to climate-friendly transport policies, to fiscal measures or to educating citizens about climate change - these are areas where Member States have their own responsibilities.

The second ECCP report indicates that the transport sector remains a troubling GHG source. Between 1990 and 2000, transport emissions grew by 18 per cent while transport already accounts for a sizeable share of the EU's total emissions.

New initiatives

The Commissioner highlighted the following as pending initiatives;

Mobile air conditioners.

The increased use of air conditioning in cars is wiping out a significant part of the emission reductions achieved under agreement with the auto industry on higher fuel-efficiency. While the measure will be reducing the average CO_2 emissions of new passenger cars from 186 grams per kilometre in 1995 to 140 grams in 2008/2009, scenarios show that in the range of 18 to 28 grams of this is lost due to higher fuel consumption because of the air conditioning and due to the emissions of the refrigerant. This corresponds to about 40 to 60 percent of committed CO_2 reductions which is unacceptable! Banning air conditioning is not considered as an option however, making sure that it is run on refrigerants with a low global warming potential is a possibility.

Linking Joint Implementation and the Clean Development Mechanism

Linking Joint Implementation and the Clean Development Mechanism to the EU future emissions trading scheme. Under the Kyoto Protocol, credits from JI and CDM projects can only be used by the Parties themselves to meet their obligations. The proposal will be to allow private actors to use these credits for compliance with obligations under the trading scheme. This will provide an additional incentive to engage in such projects and additional benefits to companies who do so. This proposal is expected to build upon the Kyoto Protocol and Marrakesh Accords, and will make provisions to assure the compatibility with the architecture of EU trading scheme.

Wallström stated clearly that the environmental integrity of emissions trading has to be safeguarded. Opening the doors for JI and CDM too wide would mean low credit prices that undercut efforts to reduce emissions within the EU. This would also reduce the incentive for technological innovation. She noted the need to achieve the right balance between encouraging the use of JI and CDM and making emissions trading deliver real emission reductions within the EU.

International Progress

Russia
Commissioner Wallström noted that Russia's signing the KP will bring it legally into force. However she noted that there was little political momentum behind the process and urged Russia to make progress in this regard noting that the Russian Government demands were fully met in the final negotiations on the Protocol in Bonn and Marrakesh and that they will benefit from emissions trading and Joint Implementation at all only if they ratify the Protocol.

USA
Commissioner Wallström admitted that the chances for the United States coming back to the Kyoto process under the current Administration to be bleak and probably take some more time. However, she recalled that President Bush promised at the EU-US Summit in Göteborg in June 2001 that the United States would not undertake any steps to sabotage the Kyoto Protocol.

She noted that while there was little headway being made in political dialogue with Washington on climate change, the EU is interested in co-operating in the areas of research and new technologies (e.g. hydrogen and perhaps fuel decarbonisation).

The differences in position between the present US Administration and the EU is that the USA wants to focus on the development of future technologies while largely continuing with business-as-usual in the meantime. The EU approach is based upon developing breakthrough technologies while exploiting any current existing emission reduction possibilities through better energy efficiency, energy saving and renewables.

Developing Countries

Commissioner Wallström recognized the need to strengthen EU co-operation with the developing countries who will be the first to suffer from climate change. She noted that the EU enjoyed a good partnership with the developing countries in the final phase of the negotiations on the Kyoto Protocol.

However she recognized that at the last UN climate conference in New Delhi, there were difficulties in explaining to developing countries the EU position on starting work on a second commitment period. From this experience, it was recognized that there is a need to strengthen dialogue with the G77. Wallström also expressed the need to integrate climate change concerns further into EU's development co-operation policy and help developing countries for example in capacity building.

In conclusion, Wallström reiterated the European Union's commitment to continue exercising leadership on climate change internationally, and taking measures to reduce emissions. She noted that the floods last year in many parts of Europe heightened awareness of the kind of economic damage and human hardship that climate change will bring. Climate change is a threat to sustainable development in all its three dimensions in an economic and social as well as environmental sense.

Advent of Emission Trading

Developing states should be aware of the possible opportunities and implications of the Flexibility Mechanisms and in particular the Clean Development Mechanism. The CDM facility provides an opportunity for developing states to achieve sustainable development while providing the industrialized states with an available route to achieve their reductions. The following summarizes the pending impacts to Europe and the concerns of their industrial sector;

- The KP means that industrialized countries will be legally bound to specific yearly emission reduction targets

- These countries will impose on their industries specific emission reduction targets

- To reach these targets, most already energy-efficient companies will invest in energy –efficient projects in developing countries and transformation countries and buy their "Certified Emission Reductions" (CER)

<u>The EU Industrial Perspective</u>

The EU Industrial sector concerns on the KP implications can be summarized from a presentation done by the Union of Industrial and Employer's Confederations of Europe **(**UNICE**)** represents more than 16 million small, medium and large companies active in Europe, employing over 106 million people. The organization has been active in European affairs since 1958, UNICE's members are the 35 leading industrial and employers federations from 28 countries.

- Industry is strongly concerned about impacts on its international competitiveness
- USA, one of EU's main trading partners do not have reduction commitments
- Developing countries do not have reduction commitments** (*Author's note; While this point may primarily be aimed at the larger countries-in-transition (i.e. China and India), this situation warrants attention from SIDS as to the eventual placing of reduction commitments <u>for all</u> developing states*).
- Increased costs especially for energy intensive industries
- Loss of market either within EU or in export markets
- Inability to grow because of lack of GHG's emission allowances to increase production
- Loss of operating flexibilities
- Increased bureaucracy

How does the market reduce emissions?

- *[Assuming] an emissions cap is established. If a company has not enough allowances to meet its emissions, it can only:*
- invest in new technology and capital stock to make emission reductions internally, or
- buy allowances in the market, or
- reduce production

The industrial sector saw all these options as increasing costs and negatively impacting on competitiveness. However, in terms of working with the KP regime they recommended the following;

How can [EU Industrial sector] get the most out of Emissions Trading?

- Maximise flexibility
- Minimise bureaucracy
- Minimise costs
- Maximise reliance on KP Flexible Mechanisms

Flexibility is consistent with the Kyoto Protocol and can be reached by:

- Full recognition of early action
- Inclusion of 6 Greenhouse gases
- Inclusion of JI/CDM credits without new restrictions
- No artificial caps such as the « trend line »

On the subject of auctioning of CER's:

- Adds costs to Industry
- Introduces more bureaucracy
- Leads to price uncertainty
- Takes money away from investment

The industrial sector perceives a problem with the auctioning of credits largely because it occurs in an environment for which the market is created by establishing an artificial deficit of allowances to be purchased at an unknown price and thereby putting industry sectors at risk.

UNICE strongly supports

- CC Action Plan based on CDM/JI
- Longer Term Perspectives
- EU linkage with CDM/JI

UNICE concerns

- *Some EU Ministers are already talking about further emissions reductions even though many Member States may not reach their burden-sharing commitments*
- The danger of shaping a «Climate Change Fortress Europe» creates the
- Need to bring USA alongside and combat climate change on a global scale

Conclusions

- Emissions Trading may be shaped to help reducing the costs of KP compliance
- but economic growth remains a key factor to cope with climate change in the perspective of the three sustainability's pillars (environment, society, economy)
- It is economic growth that leads to increased investment in developing and commercialising new and improved technologies without harming the competitiveness of EU industry and employment
- CDM/JI projects can alleviate the EU burden, while stimulating economic growth in foreign countries.

MARKETING OF CARBON

Given the general acceptance by the EU that CDM/JI can "***alleviate the EU burden, while stimulating economic growth in foreign countries"***,

- ***What is the size of the emissions market?***

Given the reduction targets established for the Annex 1 states to be achieved by 2008-2012, there exists a large potential trade volume. The industrialized countries must reduce 1 billion tons of carbon emissions per year by this time. An emissions market consultancy agency provided the following information on the market.

The estimated volume of demand: US$2.5-10 billion per year with a price range of $US5-20 per ton CO2 and this if only half of the volume of reductions is to occur through trade! The estimated resulting trade volume is US$10-40 billion per year most of which is expected to occur ***mostly with developing countries.***

Some of the EU Member States have already created national markets (e.g. Denmark, United Kingdom) and there even regional markets in the USA (e.g. SO_2). The European Union wide emissions trading market is expected by 2005 with quotas established for power stations, oil refineries, iron/steel works, cement, glass, ceramics, pulp and paper industries(Lahmeyer International, 2003).

The Government of Canada will consider the purchase of a minimum of 10 Mt of international credits and permits per year, primarily from emission reduction projects in countries with economies in transition and developing countries. The Canadian Government notes the opportunity to expand the reach of its international development efforts through the Mechanism while many Canadian companies recognize an opportunity to supply goods and services to emission reduction projects worldwide (P. Fauteaux, Director General Climate Change Bureau, Environment, Canada).

The advent of this emerging Carbon Market is not without its share of concerns as expressed by some of the early investors represented by investment companies such as TransAlta, Carbonventures, Carbonbank and EcoSecurities. The sector representatives realized that there is quite a challenge to governments and industry in mobilizing emissions trading. This is due largely to its complexity, it is unprecedented and is deeply inter-connected to other matters for business and government. It was also noted that the current "climate" regarding large-scale investment firms fraud and scandals (e.g. Enron) has left the public sceptical and wary. However, dialogue with sector representatives indicated that investments have begun in the Caribbean (e.g. Jamaica, Trinidad & Tobago). These investments are in renewable energy in Jamaica (Wind farm project) and in carbon management in the natural gas sector in Trinidad & Tobago.

THE WORLD BANK

The World Bank recognizes Climate Change as not only a grave environmental concern but also as a development issue. Particularly for developing states due to their high level of vulnerability. The World Bank views its Carbon finance activities as a natural extension of the Bank's mission to reduce poverty. It has therefore established a suite of its own Carbon finance services that include the following;

•Prototype Carbon Fund (PCF) as "flagship": JI & CDM, $180 million
•Netherlands Clean Development Facility – CDM only, $140 million over 2002-2005
•Community Development Carbon Fund (CDCF): small scale CDM to start June 2003 at $40-50 million
•BioCarbon Fund (BioCF): sinks in CDM & JI to start about Sept 2003 at $30-40 million
•Climate Neutral Bank; started March 2003
•Others in Negotiation: New Strategy

World Bank's Carbon Market Intelligence Finding

•Market has reached 200 million tons CO_2 traded of about $500 million in value
•2002 volumes will increase five-fold over 2001
•Only 43% of all carbon transactions in the past 2 years have been made in CDM/JI
•Only 13% of the private sector's purchases in 2001-2002 were in CDM (2002=16%)
•Most 2002 CDM/JI transactions were Dutch and PCF
•***Africa, smaller poorer countries and rural areas largely bypassed by carbon finance out $250m/year leveraging $2 billion/year investment***

The presenter acknowledged that the Bank had approximately 80 projects due for finance consideration. None of these projects addressed Small Island States in spite of these states having the highest risk. To date no projects have been submitted from SIDS to the Bank for consideration under these finance facilities.

World Bank's Key Findings and Observations

- Learning by Doing; Direct engagement in a transaction is the best form of carbon market capacity building
- Project Lead Time Dilemma:
  CDM/JI lead times are 3-7 years from pre-feasibility through first certification of CER's.
- Private Direct Investment is Negligible:
  Risk and uncertainty means CDM will be much smaller than expected
- Small Countries/Projects will miss out
  A handful of countries will dominate carbon supply
- Carbon Sequestration assets are at risk
  Sinks projects are best for sustainable development but will be negligible in CDM

World Bank Carbon Finance Strategic Objectives therefore include;

- Expand core carbon market development
- Extend carbon finance to poorer communities in developing countries
- Demonstrate sustainable development impact of carbon finance for "sinks" in Land Use and Land Use Change in Forestry (LULUCF)
- Build capacity of Host Countries for carbon trade

Project Examples

Community Development Carbon Fund (CDCF) Portfolio Criteria:

- Only Small Projects by Kyoto Protocol definition: <15MW; 15MW thermal; 50,000 t/CO2e/yr
- Only Developing Countries (CDM)
- 25% of portfolio in IDA countries (preference for LDCs and smaller poorer developing countries)
- Must certify local community development benefit as well as emissions reductions e.g provision of health, education services, clean water, improved local environment etc.

Presenter; Ian Noble, Senior Manager, BioCarbon Fund, ENVF (inoble@worldbank.org)

<u>Saint Lucia and the Kyoto Protocol</u>

The global community has acknowledged the growing threat of climate change and the UNFCCC/ Kyoto Protocol and its Flexibility Mechanisms remain the only option available where small island developing states as part of the wider G77 community can engage the industrialized nations in dialogue and seek redress. It is therefore in the interest of national security and sustainable development that St. Lucia and the wider Caribbean Region stay actively involved in the Kyoto process. This should be done by;

- Ensuring ratification of the Kyoto Protocol by regional states
- Active engagement in the UNFCCC and the Kyoto Protocol through its national communications and participation in negotiations
- Implementation of the St. Lucia Policy and Strategy for Planning and Adapting to Climate Change
- Active support to the Alliance Of Small Island States (AOSIS) in the negotiations
- Ensure national and regional participation in the Kyoto Protocol and World Bank initiatives by the regional institutions, development agencies and financial institutions (e.g. OECS, CARICOM, Caribbean Development Bank, Eastern Caribbean Central Bank)
- Development of the human resource capacity to function effectively in national implementation of UNFCCC/KP
- Implementation of the National Sustainable Energy Plan thereby enabling Saint Lucia to become a “Sustainable Energy Demonstration Country” by 2008-2012 in accordance with its announcement made at the Fifth Meeting of the Conference of Parties of the United Nations Framework Convention on Climate Change.