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CLIMATE CHANGE- TOWARDS AN EU POST-KYOTO STRATEGY

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Key Issues

Strategy process

Following Kyoto, the European Union must now develop a post-Kyoto strategy to meet its Protocol commitments. The Commission does not yet have all the elements to put on the table a detailed implementation strategy. This Communication, therefore, is a first analysis of how to shape such a strategy.

A comprehensive strategy will need to take into account all the provisions in the Protocol, including those that still have to be worked out, in particular the so-called flexible mechanisms. It will also have to incorporate into the analysis all sectors of the EU economy, the possible areas for action and the international dimension.

To develop this strategy the Community and the Member States need to start an interactive process through which a Community framework can be established to co-ordinate their respective actions, exchange data, track progress and identify areas for action to meet commitments. An important first step is agreeing on the most important criteria that the EU strategy must respect.

Implementation - Sharing the responsibilities

The Member States have the major responsibility for meeting the Kyoto reduction target. The Community, as a signatory of, and future party to, the Protocol, has the responsibility to ensure that Member States' actions are consistent with the Treaty and that their obligations are met under the Protocol. It also has an important role in complementing, reinforcing and supporting Member States' actions with common and co-ordinated policies and measures.

A possible way to meet the target would be to develop cost-effective policies and measures across all sectors and gases to achieve this overall objective. Indicative targets for sectors and gases, derived from the combination of the most cost-effective policies and measures, could help define the responsibility for a sector and thereby provide a useful yardstick to monitor progress and to mobilise political action.

As regards the flexibility arrangements, such an approach would also facilitate the assignment of the part of the total emissions that can be traded, if it were decided to authorise legal entities to participate in emissions trading. In any event, better integration of climate change concerns into sectoral policies is necessary as has been highlighted in the Communication of the Commission on environmental integration to the Cardiff summit.

The EU needs to know, therefore, what measures the Member States are taking to meet their targets and how. The Community can contribute to this effort.

Flexible mechanisms

The flexible mechanisms can play an important role in meeting commitments at less cost, thereby safeguarding the competitiveness of EU industry. The existence of the EU bubble does not prevent the Community from fully participating in international emissions trading. Moreover, the particular Community dimension may justify further rules or guidelines which should be adopted in respect of the internal market, state aid and existing environmental legislation. An EC-wide approach to emissions trading could also facilitate the administrative implementation of the system and prevent new barriers to trade.

At Buenos Aires, effort should focus on the minimum requirements that any Party or private entity needs to fulfil in order to participate in international trading. These rules, in particular those on compliance, should be strict enough to ensure that the Protocol's environmental objectives are met, and simple enough not to be unnecessarily burdensome. As what is agreed internationally will determine what the Community can do, the Community must endeavour to influence constructively the rules and modalities of the flexible mechanisms.

Lack of experience of multi-country emissions trading and uncertainties regarding the emissions of some gases and some sources plead for a step-by-step approach. It is also necessary to define the Protocol's use of the word "supplemental" in respect to the contribution of the flexible mechanisms.

Joint Implementation and the Clean Development Mechanism can both make a valuable contribution to the achievement of Community targets, but their rules and modalities should be coherent with those for emissions trading, at both Community and international levels, as well as ensure their environmental effectiveness.

Monitoring

The EC monitoring mechanism needs to be reinforced so that it can provide a framework for tracking progress, for regular assessment and peer review in order to ensure the EU is meeting its commitments, and for the use of the flexible mechanisms. Such a mechanism will require much greater Community involvement, in view of the need to respect the Community's own target and in view of the need to ensure a level playing field within the Community.

External dimension

The EU needs to strengthen its dialogue with other parties in order to ensure that the protocol is ratified. The development of an EU position on the participation of the developing countries and possible voluntary commitments by the most advanced will be of particular importance.

Next Steps

A number of key questions need to be resolved if an effective EU post-Kyoto strategy is to be put in place.

The Council is therefore requested to:

- **endorse the main criteria for assessing an EU climate change strategy;**

- **examine whether indicative sectoral targets at Community level should have a significant role in a post-Kyoto strategy;**

- **endorse the areas highlighted in this Communication as those where action is needed and to adopt the necessary Community measures, starting with those already proposed by the Commission, and recognising the need for adoption of national measures;**

- **endorse the introduction of the flexible mechanisms in a step-by-step and co-ordinated way within the Community;**

- **endorse the objective of the gradual inclusion of private entities over time, and that, as national use of the flexible mechanisms will have to respect the Community law, it would be desirable to have a Community framework to safeguard the internal market;**

- **agree that the definition of supplemental will have implications for the cost-effectiveness of the overall EU strategy;**

- **endorse the need for a considerable strengthening of the Community's monitoring system both for tracking progress on implementation and with a view to implementing the flexible mechanisms;**

- **endorse the orientations outlined in this Communication concerning the external dimension of the EU strategy as a basis for the formulation of the EU's negotiating position in Buenos Aires;**

- **endorse the priorities set out in this document for a strengthened dialogue with third countries.**

The key milestones as regards the construction of an EU climate change strategy:

- end 1998, Member States provide information on their strategies and what they expect from the Community;
- first half 1999, second Communication on an EU climate strategy.

1. Introduction

In October 1997 the Commission presented a Communication '*Climate Change- The EU Approach to Kyoto*[1] which underpinned the European Union's (EU) negotiating position in Kyoto. The analysis showed that a reduction of a basket of three gases carbon dioxide (CO_2); methane (CH_4) and nitrous oxide (N_2O) by 15% by 2010 compared to 1990 was technically feasible and economically manageable provided other industrialised countries made comparable efforts.

The October 1997 Communication indicated that following Kyoto the Commission would develop a more detailed climate change strategy on the basis of a comprehensive analysis of the relevant elements. The present Communication contributes to laying the basis for the development of an effective climate change strategy. Taking into account the Kyoto Protocol, it addresses the most important elements of an EU implementation strategy and the external dimension of the EU strategy.

1.1 The impact of Kyoto

The EU succeeded in meeting a number of its negotiating goals at Kyoto, in particular the acceptance of legally-binding targets by the EU's main competitors and trading partners similar to the EU's own commitment. This ensured that Community competitiveness, a major concern, was safeguarded. However, in a number of important respects the final text of the Protocol[2] that was agreed at Kyoto included a number of provisions, especially the so-called flexible mechanisms, which were not an integral part of the EU's approach at Kyoto. All these elements and their possible implications need to be incorporated into an EU post-Kyoto strategy. Those that deserve particular attention are:

- The European Community's (EC) and Member States' emission reduction targets, as well as those of the other industrialised countries are legally binding under the Protocol whereas under the United Nations Framework Convention on Climate Change (UNFCCC) there was no legal obligation on parties to actually realise a return to 1990 levels of emissions[3].

- The EC's and its Member States' commitments are extended to a basket of six gases instead of three. The three additional gases (industrial) are hydrofluorcarbons (HFCs), perfluorcarbons (PFCs) and sulphur hexafluoride (SF_6). The emission reductions of these three gases can be measured against either a 1990 or a 1995 baseline. The Protocol also has provisions for the inclusion of sinks, albeit still controversial and needing further detailed study, which would in principle allow

[1] COM(97) 481 final of 01.10.1997

[2] See Commission Staff Working Paper « An Analysis of the Kyoto Protocol » - Sec(1998) 467 of 13.03.98

[3] The EC , however, made a commitment, albeit not a legal one, to stabilise CO2 emissions in the EC as a whole by the year 2000 at 1990 levels. This went beyond commitments under the UNFCCC.

the inclusion of the intake of carbon by forests and agricultural soils in calculating emission reductions of parties.

- The EC and the Member States have commitments to reduce this six-gas basket by 8% from 1990 levels in the period 2008-2012 rather than by a fixed date (i.e. 2010). In addition, demonstrable progress has to be made by the year 2005.

- A key provision of the Protocol for the EU is Article 4, usually referred to as the EC bubble, which allows the EC and the Member States to fulfil their commitments jointly through a differentiated commitment between Members States (burden sharing). The terms of this burden sharing has to be communicated at ratification and is effectively frozen for the first commitment period (2008-2012). Both the EC and the Member States have legally binding targets and share the responsibility for meeting these targets. Providing these targets are met the EC will be in compliance. In the event of Member States failure to meet their total combined obligations this would bring the EC into non-compliance. In this context, the EC should play an important role in providing the framework for implementation and thereby facilitate the achievement of EC and Member States' targets.

- There are provisions in the Protocol on a number of so-called flexible mechanisms - emissions trading, Joint Implementation among Annex I countries and the Clean Development Mechanism - details of which still have to be worked out but which could play an important role in meeting the targets agreed in Kyoto.

- The Protocol also provides for reinforced reporting requirements and the development of a strict compliance regime which, given the interaction that is required between the EC and the Member States, will have an important influence on the development of an EU strategy.

1.2 Developing a strategy process

This Communication aims to set out an inter-active process for an overall post-Kyoto strategy within which both the Member States and Community can meet their commitments under the Kyoto Protocol in a co-ordinated and effective manner. In implementation the EC should set the framework to ensure that national and EC actions are mutually reinforcing to achieve an effective response to climate change. This process needs to cover both internal policies and measures and international flexible mechanisms since both will contribute to meeting targets.

In operational terms this process means that within a Community framework:

- the Member States must provide detailed information to the Commission on how they intend to meet their individual obligations and the contribution that they expect from the Community;

- the Commission should take forward on-going analyses[4] in co-operation with Member States in order to update and to expand the findings of recent Communications on policy issues related to climate change;
- the Community should agree on developing a common EU view on both the international and domestic dimension of a number of important outstanding issues, in particular the flexible mechanisms and sinks;
- monitoring emissions actively with a view to ensure that all actors in the EU are on track to meet their commitments.

On the basis of all these elements the Commission will develop, in co-operation with all the actors, a comprehensive climate change strategy that needs to be agreed upon before ratification of the Protocol. At the heart of this strategy is the rapid adoption of existing Commission proposals that contribute to meeting the targets as well as the development of new policies and measures.

2. Elements of an EU implementation strategy

2.1 Main criteria

A comprehensive post-Kyoto EU climate change strategy needs to meet some important criteria. These are:

Environmental effectiveness. An essential requirement would be whether the strategy can deliver the legally binding reduction targets of the Member States and the Community by the agreed date. It would also have to deliver some demonstrable progress by 2005 and take account of post 2012 when further substantive emission reductions will be necessary. In view of the global nature of the problem, environmental effectiveness depends also on the participation of other countries that have signed up for binding targets.

Cost-effectiveness. This element is important for economic and political acceptability of a strategy. A cost-effectiveness analysis should identify low cost measures and take account of secondary environmental benefits, such as reductions in local and regional pollution, other benefits (employment) and the long-term costs and benefits of climate mitigation action. Administrative costs of implementing measures should also be factored in.

Equity and political acceptability. The burden sharing of the EC target is designed to ensure that all Member States have an equitable share of the overall EU effort. Account will also have to be taken of the fact that some sectors and regions of the Community may have to cope with significant changes as a result.

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[4] The Commission expects to have at the end of June 1998 new consolidated data of greenhouse gas emissions for 1990-95, consistent projections for 2000 and 2010 and the results of several modelling exercises. These will provide a check on the business-as-usual baseline and what could happen if there are no new efforts. The results will permit the development of a more robust and authoritative view of the policy packages and the economic implications of previous Communications.

Adaptability. New and unforeseen developments can modify policy assessment and progress towards targets, and hence adaptability of the policy response needs to be built into the strategy.

Inclusiveness. All economic sectors and political players have a shared responsibility in meeting climate change goals and should contribute to meeting targets. Since sectors have very different structures this means a broad range of targeted instruments is needed.

Consistency. The principle of integrating sustainability into EC policies will ensure that EU climate change strategy is consistent with these policies and the instruments used to implement them.

Domestic action. Domestic policies and measures, comprising national and EC common and co-ordinated polices and measures, should be the major means for the Community to achieve its reduction target of -8% by 2008-2012 compared to 1990. The Council confirmed this line at the March 1998 Environment Council.

Community role in strategy process

In line with the subsidiarity principle action to address climate change should be taken at the appropriate level. Member States have a major role since they are individually responsible for their own targets within the agreed burden sharing which must be notified at ratification of the protocol by the EC. However, the fact that the Community has a target, the integration of the European economy and the need to ensure a level playing field requires that actions are also taken at the Community level. The Community needs to:

- provide a coherent strategic Community framework within which the EU post-Kyoto strategy can be shaped and agreed;
- put in place Community common and co-ordinated measures that support and complement the initiatives of Member States;
- exchange of experience and co-ordination of policy actions undertaken by the Member States and at Community level;
- ensure a coherent approach to the use of all instruments, in particular the flexible mechanisms and their compatibility with the internal market;
- monitor pro-actively and report back on progress and lack of progress in meeting targets by Member States, sectors and stakeholders.

The Council is requested to endorse these main criteria for assessing an EU climate change strategy.

2.2 A comprehensive approach on policies and measures

The Commission is developing analysis, based on common assumptions about growth rates of emissions and existing policies and measures, to determine the effort required to move from the business-as-usual scenario to the allowed level of emissions in the Protocol. This analysis is being updated to include the three new industrial gases and more recent information on CH_4 and N_20. According to initial Commission analysis the effort required to meet the EC reduction objective under the Protocol is estimated to be around 550 to 600 Mtonnes of CO_2 equivalent.[5]

It is essential that the EU strategy be based on a comprehensive assessment of how to achieve this effort on time. This assessment will have to cover all elements in the Kyoto Protocol – the level of targets, the six gases, sinks and the flexible mechanisms. It will need to cover all sectors of the economy and examine the policy options available to both the Member States and the EC. In this respect the May Energy Council has recognised that it is necessary to prepare a shared analysis of the economic impact of greenhouse gas emission reductions and to assess the scope for cost-effective emission reductions relating to the production and use of energy.

2.2.1 Gas by gas

A gas by gas analysis is useful for selecting policy options and in fact a number of Member States have used this approach in developing their own climate change strategies. A brief review is given below of the policy options available.

Carbon dioxide

CO_2 is by far the most important and most studied greenhouse gas. Emissions of this gas account for approximately 80% of the impact when the gases in the basket are weighted according to their Global Warming Potential (GWP) and are mostly linked to energy use and production of fossil fuels. An extensive analysis of the policy issues related to CO_2 emissions has been offered in the Communication on Climate Change – The EU Approach for Kyoto.

Sinks

The Kyoto Protocol specifies that sinks including forests and agricultural soils can count towards meeting the target. In the first commitment period removal of CO_2 by sinks is limited to afforestation, reforestation and deforestation. Working in this direction is the proposed regulation on rural development in the framework of Agenda 2000 which explicitly recognises that forestry measures should take into account climate change. However, in order to have a sound basis for establishing precise methods for the quantification and verification of sinks, a number of scientific issues have to be addressed. Further work of the Inter-governmental Panel on Climate

[5] The use of CO_2 equivalent makes the greenhouse gases in the basket comparable by using the global warming potential (GWP) of each gas. The GWP gives an indication of the radiative potential of each gas. CO_2 has a GWP of 1 whereas over a 100 year time span the GWPs for methane and nitrous oxide are 21 and 310 respectively ;

Change (IPCC) is therefore needed to define the categories covered by the Protocol and additional categories. Once results are available it would then be possible to come forward with further measures on sinks. The EC's research programme, *Environment and Climate*, is contributing significantly to the international research efforts on which the IPCC's results, conclusions and assessments are made. In the Fifth RTD Framework Programme, research on the carbon cycle and respectively on the methodologies and verifying of sinks will be continued and further intensified.

Methane

The Communication –Strategy Paper for Reducing Methane Emissions (COM (96) 557 and the pre-Kyoto strategy Communication identified the main sources of EC methane emissions from agriculture: livestock digestive processes and manure (45%), waste: landfill (32%) and energy: coal production and natural gas distribution (23%). Also a number of options were set out to reduce methane emissions, the second most important greenhouse gas. Methane emissions are expected to decrease significantly by 2010 due to on-going initiatives, mainly at Member State level, in the waste sector, the decline of the coal industry and agricultural developments. Additional reductions seem to be possible at low cost, depending on the sector, through:

- the reduction of bio-degradable waste in landfill and methane recovery from landfill sites;
- reductions in gas emissions from natural gas pipelines;
- environmentally sound animal manure management.

Nitrous Oxide

This gas is produced mainly from industrial processes such as nitric and adipic acid production and the use of fertilisers in agriculture, however the growing use of catalytic converters in vehicles and in fossil fuel combustion processes also make a contribution. A number of low cost reduction options, particularly in the industrial sector, were identified in the pre-Kyoto strategy Communication. A cost-effective reduction potential of up to 100 Mtonnes of CO_2 equivalent seems to be available in chemical processes, mainly in nitric and adipic acid production.

Industrial gases

The three industrial gases included in the Kyoto Protocol have very large GWPs and long atmospheric lifetimes. Their potential climate impact and their inclusion in the basket of gases at Kyoto makes it important to address policy options in an EU strategy. Existing data on EC emissions for 1990/95 and for projections for 2010 need to be treated with care since sources are not always consistent in their methodologies. Nevertheless, all business-as-usual projections show an increase in both HFCs and SF_6 and a decline in PFCs.

HFCs were developed largely as alternatives to ozone-depeleting substances (CFCs) banned under the Montreal Protocol. PFC emissions are mainly a by-product of aluminium smelting but the semi-conductor, steel, cement and fluorine industries and incineration plants also contribute. SF_6 emissions arise mainly from its use in high

voltage equipment but magnesium production and a number of specialised uses in some Member States also contribute.

Limitation and reduction of emissions of these industrial gases should be taken at Community level in order to ensure a harmonised approach. Work is underway to improve data and further analyse possible options in co-operation with industry, as a significant reduction at low cost seems to be possible in the perspective of 2010.

2.2.2 Sectors

In order to develop appropriate policy responses it is important to complement the gas by gas approach with an assessment of the sources of the various greenhouse gases by sector or economic activity and the potential contribution they can make to meet the targets. The following broad categories can be distinguished:

Transport

Transport accounts for around 20% of total EU emissions in 1990. Analysis shows that in the absence of new policy measures it is the sector with the greatest potential for growth in CO_2 emissions up to 2010. Emissions of N_2O due to catalytic converters and HFC emissions from on-vehicle air conditioning are also expected to grow strongly over this period.

Energy

Energy use and production is by far the most important source of total greenhouse gas emissions, representing around 80% of 1990 EU emissions. The most important gas is CO_2 coming from fossil fuel production and use. Around a third of total EU emissions of CO_2 originates from electricity and heat production. Other greenhouse gas emissions notably methane emissions from coal production and natural gas leaks and nitrous oxide emissions due to fuel combustion contributed around 5% of total energy related emissions in 1990. Energy is used by other sectors such as transport, industry and the domestic sector, and for that reason energy related emissions need to be attributed to these sectors.

Industry

Energy related emissions of industry in 1990 amounted to around 18% and with improvements in efficiency these emissions are expected to fall slightly under the business-as-usual scenario up to 2010. If one takes into account the emissions of the three new gases which are mainly done by industry, industry's share of EU emissions is increased by about one percentage point in 1990. These new gases deserve particular attention, because of their increased use and their long atmospheric lifetime.

Domestic and tertiary sectors

The domestic and tertiary sectors account for approximately the same share of energy related greenhouse gases as the industrial sector in 1990. However, the overall contribution of this sector is around 20% because of significant methane emissions from municipal waste. This sector's emissions are expected to increase under the business-as-usual scenario by 2010.

Agriculture

Agriculture is responsible for around 8% of the total EU emissions of the three main greenhouse gases (CO_2, CH_4 and N_2O).[6] but accounts for less than 2 % of the energy related emissions. Agriculture is the main source of methane emissions and nitrous oxide emissions (respectively, 45 % in 1990 and 40.3 % of EU emissions of these gases[7]). Agriculture and forestry may also play a positive role by replacing fossil fuel by biomass and by removing in particular CO_2 through sinks.

Conclusion

The above analysis indicates that greenhouse gas emissions are linked to a vast variety of economic activities. Any successful policy strategy therefore, will have to be comprehensive and for that reason, will have to involve the stakeholders belonging to different economic sectors. In this context, a rational approach would consist of identifying throughout the economy a range of cost-effective policy measures. On this basis it would then be possible to identify indicative emission objectives for the sectors mentioned above.

The elaboration of such indicative sectoral targets would have some attractive features. Firstly, it would allow the mobilisation of political action by defining the respective responsibilities of and expectations towards the major economic sectors. Secondly, the setting of indicative sectoral targets would undoubtedly make the monitoring of progress more effective and could therefore become an additional anchorpoint within a reinforced monitoring system (see section 2.5). And thirdly, sectoral objectives could also be a useful element in an emissions trading system, in particular in view of allocating initial emission allowances to legal entities (see section 2.4).

However, the use of sectoral targets also represents some drawbacks. They may play a useful function in the policy setting only in as far as they are set and regularly reviewed on the basis of cost-effectiveness considerations. In view of the fact that Member States may have their own national sectoral targets and strategies, any indicative sectoral targets at Community level would have to be made consistent with

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[6] Data expressed in CO_2 equivalents by taking into account the Global Warming Power for 100 years. Source: EUROSTAT. "Statistics in focus" based on European Environment Agency data related to the draft EU Communication to the UNFCCC, 1998.

[7] EUROSTAT. "Statistics in focus" based on European Environment Agency data related to the draft EU Communication to the UNFCCC, 1998.

them. Account will also have to be taken of the internal burden sharing of the EC target. For all those reasons, more attention needs to be given to the question of whether indicative sectoral targets should play a significant role in the future Community strategy.

The Council is requested to examine whether indicative sectoral targets at Community level should have a significant role in a post-Kyoto strategy.

2.3 Key policy areas for implementation

In addressing climate change there are a wide range of policies and measures that have been developed at both national and Community level which depend on a broad range of instruments The pre-Kyoto Communication and some recent strategy documents, notably in the energy and transport areas, indicate a mix of cost-effective policies and measures and a broad range of policy instruments for achieving emission reductions.

In their past national climate strategies Member States have already identified a number of areas for action, as well as ways to implement Community measures. In the framework of subsidiarity, burden sharing and the emphasis on domestic action most of which presently is done by member States; national measures, reflecting the different situations of Member States, will be to the fore in the development of a post-Kyoto strategy.

The EC has to ensure that measures being taken at both the Member State and Community level are consistent with other Community policies and that they respect the Treaty. Further analysis within an agreed framework will help to refine existing options and to identify others for implementation, particularly for the medium term, and to determine what is best done at national and Community levels respectively.

The Community, being responsible under the Kyoto-Protocol for the fulfilment of the reduction obligation it has subscribed to, needs to establish instruments which ensure that the overall reduction is effectively achieved. If instruments in the area of external trade, agriculture or affecting the single market are to be used they can only be decided at Community level. In other areas where there are common policies such as transport, energy or taxation, Community measures obliging Member States to take certain measures may prove necessary if action undertaken by Member States on their own initiative appear to be insufficient to ensure the fulfilment of the obligation of the Community. In addition the Community can play a catalyst role for actions taken by Member States. The Community has already shown to be a forum for exchange of experience and research results. Taking a longer perspective, scientific analysis that has contributed to the success of Kyoto should be further developed in the framework of the 5th RTD Framework Programme, in order to underpin relevant policy decisions.

It should be underlined that if demonstrable progress is to be realised by 2005 then certain elements need to be in place by 2002 which requires a confirmation to move on certain actions now. The main priority areas for action at the national and EC levels for the main EC sectors are identified below. A number of key measures which can only be done at EC level are singled out for implementation.

Energy

In its conclusions on the energy response to Kyoto (11.5.1998), the Council of Energy Ministers noted that "in the field of energy the reduction of greenhouse gas emissions requires responses such as a sustained commitment to energy efficiency and energy saving, developing the use of safe energy sources with low or no CO_2 emissions within the framework of Member States' policies, and reducing the impact of the use of energy sources with high carbon content". Such measures, for example, could be useful in industrial and power generating activities.

Areas for priority action at this stage are set out in the three recent strategy Communications[8] on Combined Heat and Power, Energy Efficiency and the White Paper on Renewables. The Energy Council urged the Commission to continue its work in these fields and to submit concrete proposals on the development of such measures where appropriate. In this respect, priorities for specific action include:

- Measures to promote a substantially increased use of renewables, aiming to double their share in the Community's energy balance to 12% by 2010, including a proposal for a harmonised Community framework for fair access of electricity from renewables to the grid, increased support for biomass within the Common Agricultural Policy, and greater emphasis on renewables in the revised Structural Funds.

- Promotion of rational use of energy, focussing in particular on efficiency measures in the building sector (including amending Directive 93/76/EEC), electrical appliances, lighting and office equipment, long-term agreements with industry, promotion of energy services, dissemination of information on best practice and further development of financing instruments. It is important that the revised proposed Directive on Rational Planning techniques should be adopted. Energy efficiency must also be promoted in other relevant Community policies and subsidies and tax schemes counteracting efficient energy use should be progressively reduced.

- Measures to promote the use of CHP, aiming to exploit achievable potential of doubling the share of CHP in the Union to 18% by 2010, including the encouragement of voluntary agreements with industry, improved technology procurement, and increased and higher quality information dissemination.

[8] COM(97)514 final; COM(98)246 final; COM(97)599 final.

Action is required both at Member State and Community level in all these areas in order to adopt and implement common and coordinated policies and measures. The ALTENER II and SAVE II Programmes will provide support for some of the Community actions, and increased use will be made of other existing Community programmes towards the objective of reducing greenhouse gas emissions in the energy field.

Transport

In the transport area the broad priority areas have been mapped out in the Communication on Transport and CO_2 (COM(98)204). The measures presented in this Communication are estimated to be capable of at least halving CO_2 emission growth by 2008-2012. The main priority areas where low cost emission reductions can be achieved are:

- measures to reduce emissions from passenger cars;
- progress with fair and efficient pricing in transport;
- the completion of the internal market in rail transport;
- the integration of the various modes of transport, both in freight and in passenger transport, into an intermodal transport system.

There are many measures falling in these four categories that should be taken at local and national level and would entail significant transport, economic and environmental gains. Examples are policies to promote best practice in freight transport, improved urban transport systems and the development of adequate public transport infrastructure.

However, some measures would have to be developed at Community level because they have a direct impact on the internal market or are covered by the Common Transport Policy. The Commission has already tabled proposals and drafted action programmes on some of these measures, but progress has, so far, been slow. Important examples are a proposal aiming at the further opening up the rail market made in 1995 (COM(95)337), a proposal from 1996 for amending the Community system for road charges and taxes (COM(96)331) and a Communication on Freight Intermodality published in 1997 (COM(97)243final). The Council has not yet been able to decide on the first two proposals and has, so far, not had any discussion on the Communication on Freight Intermodality and the attached action programme.

The Commission considers that urgent progress on these and other proposals is required to further the efficiency of the transport system as well as its environmental sustainability.

As regards international aviation the Commission is of the opinion that the Community and the Member States should act together to negotiate the limitation or reduction of greenhouse gases with ICAO. To that effect the Commission has recently adopted a Communication (COM (98) 265) in which one of the aims is to secure an endorsement of an ICAO workplan aimed at securing internationally agreed reductions of emissions from aviation.

Agriculture

In the agricultural sector the main areas for action derive from Agenda 2000. In this sector there is the need for more quantitative analyses on how the evolution of the agricultural markets, as well as the existing and proposed rural develoment measures, will influence climate change.

The Common Agriculture Policy (CAP) is a key EU common policy and actions taken in this sector to address climate change will have to be taken within a Community framework. However, there are also a number of possibilities for action under the CAP which are relevant for climate change, notably in the field of rural development, that are the main responsibility of national and regional authorities. In the context of Agenda 2000, there are a number of concrete EC common measures, as well as other measures that provide a wider scope for action at the national and regional level, that would contribute to reducing emissions in this sector.

Priority areas for action by the EC are:

- intensified research in the framework of the Fifth Framework Research Programme;
- using appropriate afforestation measures in the field of rural development;
- promoting renewable energy crops in the framework of the voluntary set-aside, notably by increasing or differentiating the voluntary set-aside rate in the case of non-food production; increasing state aid ceilings for multiannual non-food crops and through rural development measures for the use of Member States;
- for methane emission reduction: (a) by using the rural development measures, especially investment support, to promote better storage and treatment of animal manure; and, (b) by encouraging research on improved feeding of animals;
- for nitrous oxide emission reduction: (a) by promoting a decrease in the use of fertilisers, the main agricultural source of nitrous oxide, through the price reductions proposed in Agenda 2000; (b) by increasing support to agro-environment measures to ensure a further reduction and a better use of fertilisers; (c) by maintaining and enhancing low-input farming systems and other sustainable agricultural practices through the development of the Less-Favoured Area Scheme; and, (d) in the framework of the proposed Regulation concerning rules for direct support schemes, Member States may be willing to make direct payments conditional upon the respect of requirements concerning fertilisation.

Industry

The potential for reducing CO2 emissions in the industrial sector is well researched, and most energy intensive sectors of EU industry have improved energy efficiency and thereby reduced emissions. However, there is still scope for further energy efficiency gains and sectors such as aluminium, cement, steel, chemicals and motor vehicles are active in promoting technological improvements to reduce emissions. Industry can also play an important role in providing the right products for energy

efficiency improvements in buildings and the domestic sector The Kyoto Protocol presents a major new challenge for industry: apart from the reduction of CO2 emissions, powerful greenhouse gases such as nitrous oxide and the three new industrial gases require immediate investigations and commitments by industry

There are many measures addressing the areas for action referred to above. Given the differences in industrial structure in the Member States and the different progress made to date in reducing emissions in this sector in the Member States, many of the actions to reduce emissions will be taken by member States. Nevertheless, there are a number of measures that need to be taken at Community level for internal market reasons or because with a Community measure the overall reduction of emissions would be greater.

- Proposal on a Directive on Electrical and Electronic Waste which could be a useful vehicle for reducing HFC emissions.

- Negotiation and conclusion of Environmental Agreements with specific sectors that are major emitters of CO_2 and other greenhouse gases at the EC level are also a flexible option. CO2 reduction for passenger cars is a notable example but the Commission is engaged in discussion with other sectors such as the detergent manufacturers with reduced energy consumption from detergent use a major goal;

- Development of a framework covering all fields of production and use of the three industrial gases for their emission reduction and the development of environmentally sound alternatives.

Cross- sectoral policies

There are a number of cross-sectoral policies that are particularly appropriate for action at EC level. Some of the most important are

- The proposal for a Council Directive re-structuring the Community framework for the taxation of energy products (COM (97) 30 which enlarges the scope of the Community minimum rate system beyond mineral oils to cover all energy products. This proposal would also have direct environmental benefits and would also give Member States the option to differentiate national taxes according to, *inter alia*, CO_2 emissions. This proposal should be viewed as a separate, but complementary, tool to the flexible mechanisms, given that it is first and foremost an internal market instrument.

- Among various actions on waste the Directive on the Landfill of Waste. Its aim is to reduce the biodegradable component of municipal waste that is being landfilled, thereby reducing methane emissions as well as ensuring that landfill gas from both new and existing landfills is collected and controlled. It would have an impact notably on the domestic and tertiary sector.

- The Fifth RTD Framework Programme (1998-2002) will cover, through its specific programme "Preserving the ecosystem" and one of its key-action on

"*Global Change, climate and biodiversity*" (400 millions ECU), the scientific and socio-economic research regarding climate detection and impacts assessment as well as mitigation and adaptation responses to climate change. Such research is intended to provide analytical underpinning to the identification, evaluation and implementation of effective, cost-efficient and equitable policy options to tackle climate change in the short and long-term period. The Fifth RTD Framework Programme will also cover the R&D and the innovation policy related to clean and efficient energy technologies. This activity is expected to deliver, already in the short and medium term, new technologies which could have a substantial impact on greenhouse gas reduction; complementary innovation measures taking into account socio-economic assessment would help to strengthen the deployment of these new technologies into the market. Two relevant key actions of the specific programme "Preserving the ecosystem" address energy related issues (*"Cleaner energy systems, including renewables"* and *"Economic and efficient energy for a competitive Europe")* with a total amount of approximately 1 billion ECU. Another specific programme entitled "Competitive and sustainable growth" also includes key actions dealing mainly with new technologies in industry and transport which could have a significant impact on greenhouse gas emissions reduction.

The Council is requested to endorse the areas highlighted in this document as those where action is needed and to adopt the necessary Community measures, starting with those already proposed by the Commission. The Council should further recognise the need for adoption of national measures.

2.4 Flexible Mechanisms

The Kyoto Protocol allows for the use of three flexible mechanisms: international emissions trading, Joint Implementation and the Clean Development Mechanism.

- International emissions trading allows Parties to the Protocol who reduce emissions below their assigned amount to sell part of their emission allowance to other Parties. If Parties need an additional emissions allowance, they can buy the extra from other Parties who have spare capacity and are willing to sell. .
- Joint Implementation is a specific form of emission trading at project level. Annex I Parties to the Convention can undertake projects (e.g. fuel switching for a power station) with other Annex I Parties which result in additional emission reductions in the country where the project is located. Those reductions can be used to increase the emission allowance of the Party financing the project, while the emission allowance of the Party where the project is carried out would be correspondingly reduced.
- The Clean Development Mechanism is also project based, but the Parties where the projects are located and the reductions undertaken do not have quantified commitments. For that reason, projects not only need approval by the Parties concerned, but emission reductions resulting from them must also be certified by independent agents.

The rules and modalities for use of these mechanisms have to be further defined at COP4 in November 1998. The Community and the Member States have to decide how they intend to use these mechanisms both within the Community and internationally. Coherence needs to be ensured between what the Community intends to do and what international rules are agreed at COP4.

2.4.1 Participation of Member States and the Community in an international emissions trading regime.

The specific role for the Community in emissions trading within the EU

The EC bubble is an open system: it is a way of distributing the effort between EU Member States so as to ensure that the EC's target under the Protocol is fulfilled. There is, therefore, compatibility between the EU bubble and international flexible mechanisms. To the extent that the EC and the Member States actually use the flexible mechanisms, the domestic action within the EC to fulfil its "assigned amount" will lead to emissions within the Community's territory below or above the -8% target. The amount by which the actual emissions differ from the initial assigned amount will depend on whether the EC is a net acquirer of emissions credits or permits from outside the EU, or a net transferor.

The bubble agreement to the Protocol will indicate the assigned amount for each Member State at the beginning of the period. The use of emissions trading (as well as Joint Implementation and the Clean Development Mechanism) will increase or decrease this assigned amount according to the acquisitions and disposals of each Member State (directly or through authorised entities).

Not everybody nor every sector would be interested necessarily in participating in emissions trading arrangements, but everybody and every sector should contribute in different ways to the attainment of targets, whether through taxation, energy-efficiency standards, voluntary agreements, or a combination of these and other instruments. Different measures each have their own attractions, and are targeted at particular sectors. For those entities that are to be involved in trading, however, it is clear that a legally binding assigned amount of the particular gas or gases open for trading needs to be set quantitatively. A comprehensive trading system across sectors would help ensure that the overall reduction target is met in a cost-effective way.

Internal market and state aid

For internal market reasons, it would appear to be preferable for an EC-wide permit market to be considered. It would not be desirable to have widely different trading arrangements in different Member States. The Community's role could be twofold. On the one hand, to co-ordinate the actions of the Member States, and, on the other hand, to harmonise the trading system to the extent necessary for the proper functioning of the internal market. To avoid distortion of competition and discrimination, the EC needs a common framework, setting common principles and minimum rules, similar to those that exist on state aid or for the common Value Added Tax system.

Of particular relevance is the state aid context as competition within the internal market could be distorted due to different modalities of national trading programmes. The issue of state aid is intricately related to the crucial question of whether, and to what extent, private entities are allowed to participate in emissions trading. The Protocol allows each Party to choose whether to participate in the international trading system or not. Any authorisation allowing private entities to trade will have to respect the choice of the Member States who have, as Parties to the Protocol, to take the decision whether to trade at all. Differences of approach within the Community could themselves give rise to private companies facing different economic conditions in one Member State from what comparable businesses face in another Member State, thereby potentially undermining the internal market.

If a Member State buys permits on the open market, and then gives them to certain enterprises of its own industry for free or without imposing conditions, then this could constitute state aid and would need to be authorised in advance by the Commission, since it could distort competition with enterprises in other Member States, where industry must buy the permits it needs at the market price. Clear guidelines will have to be established in this context. Similarly, the initial allocation of permits to individual companies, in the case that private entities are authorised to trade, will also need to be in conformity with the state aid rules: in the Commission's view the allocation should be transparent, non-distortionary and based on common criteria and principles. The market will also have to be left open to new entrants who have not received credits at the time of the initial allocation. Particularly with respect to initial allocations but also in respect to rules for monitoring and compliance, there must be no discrimination between participants of a trading system that would infringe the internal market. Finally, account must also be taken of the specificities of the Common Agricultural Policy.

Step-by-step approach

Theoretically the Community could immediately opt for a comprehensive internal emissions trading scheme covering all gases and all economic sectors. However, in view of the lack of national and international experience, the Community and its Member States may prefer to follow a prudent step-by-step approach in the development of their internal emissions trading. Trading requires a high degree of certainty in monitoring actual emissions. There are three different ways of implementing this step-by-step approach: (1) by limiting the number of gases, as, at present, CO2 emissions emanating from certain sources are subject to less uncertainty than other gases; (2) trading could in the first instance be limited to the best known emissions sources, such as large combustion plants and big emitters; and, (3) although the possibility of allowing private entities to trade is being considered, it may be appropriate to limit trading initially to Parties. In view of enhancing overall effectiveness, there is a clear case for Member States to move towards similar regimes in a co-ordinated way.

2.4.2 Use of Joint Implementation and the Clean Development Mechanisms in meeting EC commitments

Contrary to emissions trading as described above, Joint Implementation and the Clean Development Mechanism are project-based instruments that allow for the creation of emission reduction units or certified emission reductions. They can be added to the assigned amount of Parties and therefore can contribute, to a certain extent, to compliance with the EC commitments. Joint Implementation is restricted to projects undertaken between the Annex I Parties (i.e. those Parties who have targets set under the Protocol), and the Clean Development Mechanism concerns projects undertaken in countries of non-Annex I Parties to the Convention. Consequently, the credits earned by Annex B Parties under the Clean Development Mechanism would increase the total allowed emissions of Annex I Parties, although this has to be balanced against the decrease of emissions that a well-designed and operated Clean Development Mechanism will produce in non-Annex I countries.

The Protocol allows Parties to authorise any legal entity to participate in Joint Implementation and the Clean Development Mechanism activities. In particular for those companies who do not accept the imposition of an initial emission allowance of gas that they can trade, Joint Implementation and the Clean Development Mechanism would offer them flexibility on a project basis. However, private company involvement will still require a strict project and certified emission reduction unit tracking and accounting system at both national and Community level.

Furthermore, it should be considered whether project funding for Joint Implementation and the Clean Development Mechanism could be made in part through public funds (including EU funds). In general, there is a need to ensure that Clean Development Mechanism projects go further than state of the art investments, and that projects and technologies that go beyond the "no regrets" options are implemented and transferred. Finally, Member State and Community aid programmes to support Clean Development Mechanism activities should result in reductions in emissions that are additional to any that would occur in the absence of the programmes, nor should they result in the diversion of aid flows.

2.4.3 Conclusion on application of the flexible mechanisms within the Community

Under the Protocol, international emissions trading will not become operational before the year 2008. However, the Community could set up its own internal trading regime by 2005 as an expression of its determination to promote the achievement of targets in a cost-effective way. This would provide the Community with invaluable practical experience of trading, and its accompanying monitoring regime, in a multi-country context. Such an internal trading regime would not fall under the rules and modalities of international emissions trading under the Kyoto Protocol, and nor would it be designed to generate early credits for when international trading starts. Such a Community emissions trading regime would rather ensure that the Community will be better prepared at the start of international emissions trading with effect from 2008. Finally, emissions trading introduced *within* a single Member State would be a

domestic policy and measure that would not fall under the rules and modalities of international emissions trading under the Kyoto Protocol.

As all the Member States are Parties to the Protocol, the intra-EC trading arrangements will have to be in conformity with the rules and modalities agreed in Buenos Aires for emissions trading at an international level. Consequently, any definition of the Protocol's requirement that the contribution of the flexible mechanisms is "supplemental" will also have to be respected for trading between Member States.

The Council is requested to endorse the introduction of the flexible mechanisms in a step-by-step and co-ordinated way within the Community.

The Council is requested to endorse the objective of the gradual inclusion of private entities over time, and that, as national use of the flexible mechanisms will have to respect the Community law, it would be desirable to have a Community framework to safeguard the internal market.

The Council is further requested to agree that the definition of supplemental will have implications for the cost-effectiveness of the overall EU strategy.

2.5 Monitoring

2.5.1 Monitoring in relation to compliance with commitments

Progress needs to be monitored. In this respect the EC monitoring mechanism has an important role to play in the development and implementation of an EU strategy owing to the fact that both the Member States and EC have joint responsibility for meeting their commitments under the Kyoto protocol.

So far the monitoring mechanism has been relatively weak and data has been late. The revised monitoring mechanism[9] being adopted that enters into force in 1999 will help. It requires, *inter alia,* the Member States to provide information on the effects of measures on their emissions so that the Commission can assess annually whether the EC is on course to meet its Kyoto commitments. The monitoring mechanism should be a pro-active basis for continuing dialogue, tracking progress according to indicative sectoral targets which will show each year whether demonstrable progress is being made, and whether all sectors are contributing as expected, towards the attainment of targets. Continuous assessment, peer pressure and review between all the participants - the Commission and Member States - will ensure that necessary action to improve performance is taken if objectives look as though they are not being achieved.

[9] Proposal for a Council Decision amending Decision 93/389/EEC for a monitoring mechanism of the Community for CO_2 and other greenhouse gases –COM(98) 108 final of 02.03.98

Certainly there is a need for enhanced dialogue within the monitoring mechanism framework even before the revised monitoring mechanism delivers given that the EU needs to show demonstrable progress by 2005. Also in this framework the question of whether we should set interim Community target for 2005 to help ensure that measures we need are adopted in time needs to be considered. If the EU wants to continue to drive the process forward and recognises that Kyoto targets are but a first step, there is a case for setting an ambitious target for 2005 which gives the EU certainty that the EC will meet its legal commitments and be ready to go further in the second commitment period.

2.5.2 Monitoring in relation to the flexible mechanisms

Use of the flexible mechanisms, by Parties and, in particular, by private entities to the extent that they are allowed to participate, must be accompanied by a robust and transparent monitoring system. Such a monitoring system should also cover accounting for transfers, and consequential adjustment of assigned amounts as appropriate, verification of emission reduction units and of certified emission reductions obtained through Joint Implementation and the Clean Development Mechanism. In addition, compliance (including eligibility to use each of the flexible mechanisms) needs to be settled. In view of the need to ensure a level playing field within the Community, it is therefore unavoidable that such a comprehensive monitoring system would require much greater Community involvement. The Community monitoring system that will be applicable from 2000 on will, therefore, in all likelihood have to be substantially modified.

Once in the commitment period (2008-2012), the Community's monitoring mechanism will help ensure that the Community as a Party complies with its legally binding target, as well as with the rules and procedures that will have been agreed on for the flexible mechanisms.

The Council is requested to endorse the need for a considerable strengthening of the Community's monitoring system both for tracking progress on implementation and with a view to implementing the flexible mechanisms.

3. External dimension of the EU strategy

3.1 International negotiations of flexible mechanisms

3.1.1 Objective in Buenos Aires

In this Communication, the Commission puts forward a set of guiding principles on international trading and other flexible measures. At the Fourth Conference of the Parties (COP4) in Buenos Aires, it is expected that a position on the main trading principles, and possibly modalities, will be agreed. The Community should do its

utmost to ensure that there is a positive outcome to COP4 that clearly establishes the modalities and rules for use of the flexible mechanisms at an international level, as well as laying the foundations for an enhanced participation of non-Annex I countries in global greenhouse gas reduction efforts. The Community will have to decide after Buenos Aires to what extent stricter internal Community rules than those agreed at COP4 are warranted in respect, in particular, of the internal market and monitoring.

Irrespective of whether any individual Member State ultimately wishes to use the flexible mechanisms or not, a firm and common EC position towards the establishment of minimum rules for the international trading system should be presented at Buenos Aires.

3.1.2 Eligibility to participate in an open, transparent and non-discriminatory international trading system

Although the Protocol says that the Parties may trade, they do not need to do so even if eligible. During the course of the budget period, a Party may decide that it needs to trade if its target is to be reached. Such flexibility can only be preserved, however, if Parties fulfil all eligibility criteria for trading.

The EC and the Member States have an interest in establishing and fulfilling the eligibility criteria for all Parties involved in trading, irrespective of whether they wish to trade or not, as this will keep options open for the future.

The EU should insist on an international greenhouse gas trading system that is open, transparent and non-discriminatory. Available permits should be accessible to all Parties and other authorised entities wishing to acquire them, and there should be an open information flow on the terms and reporting of trades, which must be made regularly and be accessible to all Parties and other stakeholders.

3.1.3 Step-by-step approach

There is a lack of practical experience with the flexible mechanisms. If too much is done too soon, the international trading system may prove unworkable.

Internationally, the EU should therefore urge that a gradual approach be adopted, both in terms of participants, in terms of quantities, gases and sources. This is to reflect the uncertainties related to the emissions of certain gases and certain sources, and to reflect that accountability of the Parties must be maintained as it is the Parties who remain responsible for their own compliance. One option would be to limit, for the first period 2008-2012, the number of actors involved in trading to Parties, and, if trading by private entities is allowed by the rules and modalities, to initially restrict trading to large sources whose emissions are more certain and who are able to monitor their emissions with satisfactory accuracy. This step-by-step approach to trading could start with emissions that can be accurately measured, such as CO2 emissions.

In the case of Joint Implementation and the Clean Development Mechanism, uncertainties need to be addressed through project criteria, and agreed methods for the verification of reductions.

It may be decided, at an international level, that private entities could be involved in trading. As it stands, the Protocol confines trading to the Parties themselves, whereas private entities may also participate in Joint Implementation and the Clean Development Mechanism. The involvement of private entities in trading would, on the one hand, enhance the economic benefits of trading, but, on the other hand, would increase the complexity of regulation and control to ensure that the environmental goals of the Protocol are met. Whatever the decision on who can trade, Parties should be free to authorise or not private entities within their jurisdiction, as long as strict minimum requirements, to be agreed at the level of the Conference of the Parties, are fulfilled.

3.1.4 Supplemental

The reason for the Protocol's inclusions of the word "supplemental" is to ensure that the main means of meeting commitments agreed in Kyoto should be provided by domestic action. Domestic policies and measures do have benefits other than reducing greenhouse gases. Such benefits include the reduction of other pollutants, the improvement of urban air quality, for example, and even beneficial effects in other policy areas (reductions of road congestion, security of energy supply, lowering of statutory charges on labour with tax receipts and encouragement of technological development). Furthermore, some measures, such as taxes on energy, have other objectives than environmental protection.

One option to ensure that emission trading is "supplemental" is to limit the net amount of the assigned amount that can be traded. Such a limit, or "concrete ceiling"[10], on all three flexible mechanisms taken together is one way to ensure that real reductions are achieved by the introduction of other policies and measures, while still benefiting from the cost savings that can be derived from the flexibility offered by emissions trading and the other flexible mechanisms. For this reason, and to preserve the maximum flexibility within a cap, the Community should continue to insist on a common ceiling as a condition of participating in the international trading system, but that this ceiling should be applicable to the Community as a whole.

If the Community wishes to have a quantitative ceiling, it should develop a clear basis for fixing the amount of the cap at a particular level, taking cost-effectiveness into account. On the other hand, the cap may not be necessary if it is judged that the rules and modalities on international emissions trading are sufficiently strong to guarantee supplementarity and an effective Protocol. A cap could create an administrative burden, in so far as checks would have to be carried out to ensure compliance with the cap, and, in limiting the degree of flexibility, the cost-effectiveness of trading would be reduced. Similar arguments would apply when establishing the quantitative or qualitative limits on the "part" of credits that can be brought into the trading system

[10] "Concrete ceiling" is the terminology used in the March 1998 Environment Council Conclusions,

via projects under the Clean Development Mechanism with countries that do not have a legally binding emissions target under the Protocol. However, for the Clean Development Mechanism, the wish to encourage the participation of non-Annex I countries is important.

3.1.5 How to make trading work environmentally and economically

Strict monitoring of trading is necessary for Parties to be sure that they will fulfil their international commitments. Equally, adequate monitoring of actual emissions is necessary to ensure that trading is matched by the seller making emission reductions that go further than what is necessary to comply with the assigned amount allocated to him. For emissions trading to be of real benefit to the environment, whatever permits one Party buys should be matched by a corresponding reduction in emissions by the Party that is selling.

The certification and tracking of trades, *ex-ante* and *ex-post* evaluation of trading systems and participants will be necessary if there is to be widespread confidence in the trading mechanisms and the purchase of credits or permits under the system. Transfers could be reported annually, published by the Secretariat and, if necessary, broken down by year of emission, country of origin, and gas. Parties could also be required to report on national mechanisms for the certification and verification of emission reduction credits. Such rules of operation could be compared to a stock exchange or comparable well-structured and organised market, where there are obligations designed to maintain the transparency and efficiency of the market. Similarly, *ex-post* verification by independent bodies should be envisaged as part of the transparency and reliability of the trading mechanism.

Those strict rules would have to be adopted by all the Parties involved in international trading. In this context, the rules must be co-ordinated as much as possible at Community level.

3.1.6 Compliance provisions for the flexible mechanisms

Under the Protocol, Parties (including the EC as Party) are responsible for compliance. It would be unwise to depart from this principle, even if it is decided that private entities are allowed to trade as well as Parties.

As a corollary to monitoring and evaluation, and apart from the general compliance provisions for the Protocol as a whole, specific compliance provisions are necessary to ensure that the flexible mechanisms deliver environmental benefit. Compliance should include international sanctions, even penalties, which can be imposed on those trading if they fail to comply with the rules. Sanctions could include suspension from trading until compliance with the trading rules has been re-established, the automatic deduction from the next budget period of emissions which exceed the allowed amounts after trades have been taken into account, and even the possible annulment of trades that are not matched by emissions reductions (so called "buyer beware"). Penalties could possibly include a stricter target being required of a Party in the

subsequent budget period. Clearly, the respective responsibilities of actors in trading will have to be established, so as to avoid liability litigation.

3.1.7 International use of project-related instruments (Joint Implementation and the Clean Development Mechanism) with a view to achieving commitments.

To the extent that Joint Implementation gives rise to emission reductions in the recipient country which are transferred to the investor's country, the transfer is similar to an acquisition of part of an assigned amount through trading by the investor's country, except that the part would not have been bought, but earned through actual investments in projects. The COP should define further guidelines. The guidelines for Joint Implementation and the rules and modalities for the Clean Development Mechanism should be consistent (e.g. methods for defining project baselines, for verification of the emissions reduction achieved and other project related criteria). Analogously, the cost-effectiveness could be enhanced through the tradeability of certificates generated by the projects.

For the Clean Development Mechanism, there can be no corresponding downward adjustment of the target of the recipient country, given the absence of any legally binding target for this country. The credits have to be compared with an estimated reduction on the basis of specific criteria rather than in relation to targets. This justifies why some additional requirements might be necessary for the Clean Development Mechanism. In particular, definition of the "part" that the Clean Development Mechanism can contribute is a priority, in view, among other things, of the possibility to generate early credits between 2000 and 2008. This part could be limited in order to place more emphasis on domestic action of Annex I countries. It is also essential to define the key criteria for "additional" which, if not carefully defined, could undermine the environmental effectiveness of Clean Development Mechanism activities.

The Council is asked to endorse the orientations outlined above on the external dimension of the EU strategy as a basis for the formulation of the EU's negotiating position in Buenos Aires.

3.2. Strengthened international dialogue

In the run-up to Buenos Aires and beyond the EU needs to be effective in reaching out to its partners and so it needs an external strategy. A continuing dialogue with the main players in the negotiations will help in communicating the EU position and rallying support to it as well as reaching a better understanding of third countries' position. The key topics of the dialogue are signature, ratification, domestic actions, emissions trading, clean development mechanism, participation by developing countries, helping countries to meet their existing commitments and international monitoring and compliance.

As we work on completing the outstanding issue under the Protocol and in preparing implementation, all Member States, the Presidency and Commission, operating within an EU co-ordinated framework, should use their resources effectively to ensure that partner countries receive consistent and specific messages that reflect the priorities of the EU and the specific concerns of these countries.

A major aim of the EU is the entry into force of the Protocol and so it will therefore need to give particular attention to USA and Russia who because of their high share in Annex I emissions will have an important influence on this. Equally the EU must strengthen its dialogue with all other industrialised country. Russia is not only important for ratification, but along with Ukraine poses particular issues since these are the only countries whose assigned amount are likely to be significantly above their domestic emissions in the first commitment period 2008 - 2012.

In the run up to Kyoto the EU developed an effective dialogue with the Associated countries which need to be continued and strengthened. In this context it will also be essential to discuss possible joint implementation projects with them. Under the terms of the Protocol the Associated States will not be counted as part of the Community – 8% target for the period 2008 –2012. Nevertheless as they work towards accession the evolving acquis on climate change will be a major focus of debate.

Turkey and the new OECD members Korea and Mexico are important for the EU's objective of gradually extending the number of countries with binding commitments. The EU needs to enter into a constructive dialogue about the possible nature and level of commitments these countries might be willing to undertake.

AOSIS, a group of 41 mainly ACP islands and coastal states, have the most ambitious goals of all countries. Being among the most vulnerable of all countries they are increasingly concerned about impacts of climate change. A satisfactory solution of the question of the share of proceeds from the Clean Development Mechanism which shall be used for adaptation projects will certainly be important for them. At the same time, as members of the G 77 they play an important role in trying to broker compromises between industrialised and major developing countries.

Some African states are also concerned about the impacts of climate change and are potential allies on climate issues in the context of our wider privileged relationship. They are looking for support in unravelling the implications of the remaining negotiating issues

Argentina has played a crucial role throughout the negotiations on Kyoto and of course hosts the Buenos Aires meeting. A topic for further consultations with Argentina is their intention to submit a proposal for voluntary commitment of non Annex I countries under the Kyoto Protocol. Brazil is also a leading player. It submitted last year a proposal how to arrive at differentiated commitments for all Parties, which will be discussed in the upcoming meetings and it played a crucial role in defining the Clean Development Mechanism.

China and India deserve particular attention because of the high projected increase in emissions. They are very concerned about equity and trade implications of the flexible mechanisms and have also made clear that the arrangements for emissions limitations in the Kyoto Protocol, which are designed for mature industrialised economies, cannot be extended to countries at a very different level of development. Thus they are concerned about the type of precedents that the continuing negotiations on the Kyoto rules will create for the long term. Energy producing countries, Indonesia, along with Malaysia and the Philippines have a keen interest in these issues and have been active in the negotiations. The oil producing countries also have a vital interest in climate change issues. Reinforced dialogue, in particular with the Gulf Co-operation Council, needs to be maintained

Greater visibility should be given to existing EU efforts and consideration given to what more could be done within existing mechanisms including the European Investment Banks 's role. The aim would be to provide public support to build capacity so that countries could benefit from the opportunities provided by both the clean development mechanism and joint implementation. It will be important to make clear that existing aid flows from Member States and Community aid programmes are not themselves being diverted to obtain emissions reduction.

The Council is requested to endorse the priorities set out in this document for a strengthened dialogue with third countries.

4. Next Steps

If an effective EU post-Kyoto strategy is to be put in place the Council needs to agree on a number of elements developed in this Communication. These are:

For Implementation

- First, a common understanding between the Community and the Member States on the strategy process and the respective contributions of the Member States. In a coherent strategy all actors need to know what each of them are doing and what they are planning to do. The Commission will formally request this information by end July. In practical terms the Member States need to, inform the Commission by the end of this year of the national strategies they intend to put in place to meet their emission reduction target and what they expect Community measures to contribute. To be useful this information needs to indicate in a quantified form the expected impact of national and Community measures on their emissions as well as the state of implementation of national measures.

- Co-ordination between the various Council formations has to be improved in order to strengthen the consensus on the need for action on climate change. Agreement on emission reduction targets by the Environment Council must go hand in hand

with action by other Councils such as Ecofin, Transport, Energy and Agriculture. The Council has been innovative in developing Joint Councils and informal Councils that focus on cross-sectoral issues and which attempt to involve relevant actors. These initiatives on policy co-ordination which usually focus on principles are moves in the right direction but there is still a general lack of co-ordination when it come to the translation of political commitments into concrete actions.

- The need for improved policy integration and the development of an interactive process between Councils on this issue is recognised by both the Commission and the Member States and steps have been taken to, advance the concept of " shared responsibility". On the basis of a Commission Communication the Cardiff European Council will address in June the need for integrating more effectively environmental policies such as climate into other policy areas.

- On the basis of all these elements the Commission intends to come forward with a more complete post-Kyoto strategy in the first half of 1999.

A priority is adopting and implementing Community policies and measures in the areas set out in this document, given the need for the EU to make demonstrable progress by 2005 and that it should achieve its target mainly through domestic policies and measures. Progress in this area will be an important measure of the success of greater policy integration and co-ordination between Councils. An assessment of progress will be made in the first half of 1999.

For a Negotiating Strategy

In order to define its negotiating strategy for COP-4 in Buenos Aires in November the Community needs to agree after the meeting of the Subsidiary Bodies to the UNFCCC in Bonn a position on a number of outstanding issues, in particular the flexibility issue and developing country participation. Questions that need to be resolved are the establishment of strict rules for the flexible mechanisms and the nature of the concrete ceiling that should be set to limit the amount of the target that can be traded These issues will require extensive consultations immediately following the June Bonn meeting when issues have been further clarified and the position of our negotiating partners is clearer. To assist this process the Commission will provide the necessary input. The aim should be for the Environment Council of October to take a decision on these issues.

Buenos Aires is expected to set out the broad principles in relation to the outstanding issues, notably the flexible mechanisms. Further work will be required for making these instruments operational. Following Buenos Aires and depending on the outcome the Commission will bring out a document that will examine in more detail the possible operational use of flexible mechanisms in the EU.

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