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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Ad Hoc Group on the Berlin Mandate

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IMPLEMENTATION OF THE BERLIN MANDATE

Comments from Parties

Note by the secretariat

In addition to the submissions already received and contained in document FCCC/AGBM/1995/MISC.1, Adds. 1, 2, 3 and 4, a contribution has been received from Canada on the implementation of the Berlin Mandate.

The AGBM, at its second session, invited Parties to make preliminary submissions to the secretariat by 15 January 1996 offering additional ideas and comments on policies and measures, including, if possible, information on cost-effectiveness and on environmental and socio-economic costs and benefits for all Parties and on how they could be incorporated in a protocol or another legal instrument (FCCC/AGBM/1995/7, para. 28). A contribution has been received from Canada on behalf of the Annex I Expert Group on the United Nations Framework Convention on Climate Change.

The AGBM, also at its second session, invited Parties to make preliminary submissions to the secretariat by 15 January 1996 offering additional ideas on possible features of a protocol or another legal instrument (FCCC/AGBM/1995/7, para. 53). Contributions have been received from Estonia and the Russian Federation.

In accordance with the procedure for miscellaneous documents these submissions are attached and are reproduced in the language(s) in which they were received and without formal editing. Any further submissions will be issued in an addendum.

FCCC/AGBM/1996/MISC.1

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## **CANADIAN VIEWS ON STRENGTHENING COMMITMENTS IN ARTICLES 4.2(a) & (b) OF THE FCCC**

### **Introduction**

Canada believes that AGBM 3 represents an important step in the implementation of the Berlin Mandate. It is an important step in many ways: 1) The IPCC has completed its Second Assessment Report (SAR), which provides us with an update on the science, impacts and socio-economics of climate change, and a synthesis report, which addresses issues related to Article 2 of the Convention. 2) A number of workshops, dealing with policies & measures, emission objectives, and national communication guidelines, will take place in conjunction with AGBM 3. 3) AGBM 3 is the last substantive session before CoP2.

With respect to the IPCC reports, of particular relevance to the AGBM process are the conclusions that: 1) "the balance of evidence, from changes in global mean surface air temperature and from changes in geographical, seasonal and vertical patterns of atmospheric temperature, suggests a discernible human influence on global climate", and 2) "uncertainties remain which are relevant to judgement of what constitutes dangerous anthropogenic interference with the climate system, and what needs to be done to prevent such interference. The literature indicates, however, that significant 'no regrets' opportunities are available in most countries and that the risk of aggregate net damage due to climate change, consideration of risk aversion, and the precautionary approach, provide rationales for actions beyond 'no regrets'." This assessment, in identifying what is known and where uncertainties still remain in scientific and technical information, will be useful in informing discussions at AGBM 3.

At Berlin, at its first Conference, the Parties agreed to begin a process to take appropriate action for the period beyond 2000, including the strengthening of commitments of Annex 1 Parties. This process will, inter alia, aim both to elaborate

policies and measures as well as to set quantified emissions limitation and reduction objectives within specified time frames. Although, for the purposes of facilitating discussions in the FCCC, these two elements are being addressed separately, Canada regards them as closely inter-related, with policies & measures serving as a 'road map' for helping countries reach agreement upon net emission levels.

### **Policies and Measures (P&Ms)**

An important issue in the AGBM process that Parties will need to address is beginning to narrow the range of policies and measures available, while taking care to not close off future possible options. As reflected in FCCC documents AGBM/1995/5 & /6, as well as in the IPCC Working Group III documents and summaries, there is vast array of potential policies and measures available to address climate change. In the context of FCCC discussions, Canada proposes that countries agree on a set of guidelines in identifying those p&ms most appropriate for further examination and consideration in the FCCC. We use the term "guidelines" (and not criteria as other countries have suggested) since it is Canada's view that the acceptability of specific p&ms is ultimately the decision of national governments. Identifying appropriate 'narrowing elements' as criteria could be construed as unduly constraining nations' preferences.

Canada proposes that the following guidelines be used in narrowing the range of policies and measures for analysis and consideration in the Berlin Mandate negotiations. Policies and measures that:

- will benefit from international coordination or will only be undertaken if agreed to by (a group of) countries;
- have clear potential for reducing and/or preventing net greenhouse gas

**emissions;**

- **have multiple policy dividends, and are consistent with other national policy priorities;**
- **are cost effective and make a positive contribution to nations' overall socio-economic condition;**
- **are flexible, allowing for their implementation across a range of national circumstances;**
- **are comprehensive, covering all relevant sectors, greenhouse gases and sinks;**
- **will facilitate the participation of a larger number of countries in mitigation opportunities.**

### **Quantified Emission Limitation and Reduction Objectives within Specified Time frames (QUELROS)**

**As already mentioned in the discussion on P&Ms, Canada supports a combined approach in addressing net emission objectives: the identification of appropriate net emission objectives could be determined, in part, through the elaboration of policies and measures.**

**One area which, in our view, deserves more attention relates to the concept of differentiated commitments among Annex 1 Parties. Since we presume that differentiated commitments would take into account countries' differences in starting points and approaches, economic structures and resource bases, available**

technologies and other individual circumstances, such an approach would entail complex and time consuming negotiations. Early agreement on defining a differentiated approach is important if negotiators are to have a realistic opportunity of considering whether this is a viable concept for consideration in a Protocol in time for 1997.

Another related element is collective emission objectives. In the view of a number of countries, such an approach would promote a least cost strategy, one which could drastically reduce the costs for all Parties involved. This needs to be thoroughly explored. In that respect, some attention should be paid to the role of joint implementation under a collective reduction objective.

Canada also supports further analysis on the forms in which collective objectives could take place. Suggestions have included % reduction per year, % reduction by a certain year, an absolute cap on net greenhouse gas emissions, multiparty and cumulative approaches, emissions budgets, and the use of performance indicators, such as energy efficiency gains.

### **Performance Indicators**

Canada supports the use of performance indicators in evaluating/reviewing nations' success in limiting their greenhouse gas emissions. To maintain the overall credibility of such indicators, it should be made clear that they are not intended as a device for rationalizing why a nation has not been able to meet its emissions objectives. The ultimate indicator of progress will be the overall reduction of emissions achieved, as reflected in a country's greenhouse gas inventory and forecast estimates. The role of other performance indicators is to identify and track those factors that form the basis for changes in greenhouse gas emissions in relevant economic sectors. Performance indicators can show how human activities are tied to greenhouse gas emissions and

why, from a sectoral perspective, changes in greenhouse gas emissions have occurred.

Although national circumstances may differ among countries, there may be a subset of standard performance indicators which could be built into the reporting and review process. As a first step, the Secretariat could summarize existing literature on performance indicators, relevant in the context of climate change - for example, considerable work has been done internationally on sustainable development indicators by the OECD and the CSD.

Besides the aggregate indicators, sectoral performance indicators can be relevant for, for example, **transportation, industrial, power generation, residential, commercial, non-combustible, agriculture and forestry** sectors. Within each sector, indicators would need to be developed that analyse a sector's overall economic performance, its market signal(s), its energy intensity, the GHG intensity of the energy used, and/or the use of sustainable practices to enhance carbon sinks/reservoirs.

Some of the conventional performance indicators include emissions per unit of GDP, population, KM driven, and square feet, etc. We feel that there is a need to develop additional innovative indicators which would could enhance energy efficiency investments, the development and diffusion of environmentally friendly technologies, and capacity building efforts. Canada is doing some work in this area and would be willing to share it with the Secretariat, when available.

As a final note, it is Canada's view that performance indicators demonstrate the linkage of policies and measures with QUELROS in that indicators for discrete sectors, reflecting those p&ms which nations have agreed on, will be able to inform countries as to their relative success in reaching global net emission reduction objectives.

## **WORKSHOPS ON POLICIES & MEASURES AND QUANTIFIED EMISSIONS LIMITATION AND REDUCTION OBJECTIVES**

In considering possible vehicles for action in the assessment of p&ms and emissions objectives, Canada strongly supports the Secretariats proposal for two workshops to be held during the week of the AGBM 3 session. In regards to the proposed workshop on p&ms, Canada would expect that it would be comprehensive in its presentations, covering all relevant greenhouse gases and sectors, sources and sinks. In addition, Canada supports the Australian proposal that one way to do this would be by providing a session on each of the categories of p&ms currently being analyzed by the *Annex 1 Experts' Group on the FCCC*. Those categories are sustainable transportation, energy market reform, economic instruments, demand side efficiency, sustainable agriculture/forestry and energy reforms for Economies in Transition. Regarding the QUELROS workshop, Canada would expect that presentations should address issues related to equitable burden sharing (within Annex 1 and globally), differentiated commitments, form(s) that QUELROS could take, and the possible role of traditional performance indicators to assess the overall reduction of emissions achieved.



**Framework for Assessment and Analysis of Common Actions<sup>1</sup>**  
Annex I Expert Group on the Framework Convention on Climate Change  
Report to AGBM3

*Overall goal*

The goal of the common action study is to broadly assess the relative potential of a range of cost-effective policies and measures for common action by countries<sup>2</sup> and Parties listed in Annex I to the FCCC with a view to bringing forward this analysis to the Ad Hoc Group on the Berlin Mandate. It should be emphasized that the selected measures do not represent policy preferences on the part of the participants. The Common Actions project is an analytical exercise only, it is not intended to prejudge nations' preferences on policies and measures.

*Context*

A description of sectoral emissions trends and sectoral policy trends will be given where appropriate to set the context for assessment of each measure. The revised framework below provides the full range of information desired for broad assessment of selected measures. It may not always be possible to adhere to the framework fully as at times it may be beyond the resources of the project to find all of the necessary information (for example if new modelling studies are needed). This framework for analysis is a living document that will continue to evolve as the work on the analysis of common actions progresses.

*Policy objectives*

A brief description of the various policy objectives to which the measure is expected to contribute will be given. Policy objectives will not necessarily be primarily or wholly climate related, and can be expressed at various levels of specificity, and may vary from country to country.<sup>3</sup>

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The range of definitions for common action includes the following:

- common actions could be specific policies and measures implemented by a group of countries together under some form of agreement, to increase the effect of the measure;
- common actions could involve co-ordination of action to implement the same or similar measures together;
- common action could be an agreement to take actions in a sector towards a given aim or target;  
or
- common action could simply be successful policies and measures that could be replicated by other Parties.

Where this document refers to "countries" or "governments" it is also intended to include "regional economic organisations," if appropriate.

For example policy objectives for the measure "voluntary agreements with electricity utilities to purchase more wind energy" could be:

- reduced CO<sub>2</sub> emissions from energy (a general objective); or
- increased share of wind energy in electricity supply (a more specific objective); and
- greater diversity in electricity supply (a non-climate objective).

### *Approach and methodology*

A brief description will be given of the approach used to assess the measure, and general methods used e.g. survey of the literature, modelling, or analysis based on estimates and expert judgement. In addition, methods used for specific aspects of the analysis such as the costs and effects of the measure will be described in those sections of the report, as indicated below.

### *Full Description of Measure*

Each measure will be described as specifically and concretely as possible. This description will include information about any "package" the measure is part of - that is other measures that are associated with the measure being studied. The more carefully specified the measure, the more useful the analysis of its costs, effect, and other key criteria will be. The description will include the following information, where relevant, including a range of implementation options (e.g. how it is implemented, when it is implemented):

- (a) level/rates at which it is applied;
- (b) products/activity the measure applies to;
- (c) extent and type of commonality;
- (d) whether it is mandatory/voluntary;
- (e) monitoring and enforcement details;
- (f) other measures that are necessary or desirable for the success of the action;
- (g) options for how any revenue is used;
- (h) any incentives for compliance.

### *Rationale for common action*

A brief description of ways the measure could be implemented will be given, including variations on the extent and type of commonality, to provide insights on the relative advantages and disadvantages of common action. Examples will be given of how the measure might be implemented at various levels: broad scale level, by all Annex I Parties, by a sub-set of countries; or as a national measure. The extent and type of commonality addressed will depend on what levels are feasible for the measure.

Analysis on how the measure performs at different levels of is important, but may be conceptual rather than quantitative if information is not readily available. The ideas about how the measure might be implemented and how effective it could be, with respect to the extent and type of commonality, are more useful than trying to provide uncertain numbers. Some possible advantages from common action are:

- (a) changes in relative competitive advantage of an industry or the economy;
- (b) reduction in trade distortions, reduction in free-riding;

- (c) greater collective effect if co-ordinated;
- (d) measure may not be widely undertaken otherwise;
- (e) reduce "leakage" of emissions (e.g. from industries moving off-shore);
- (f) lower cost (e.g. economies of scale, learning by doing, technological advances);
- (g) lower barriers;
- (h) increased political feasibility.

Each of the factors listed above could be seen as disadvantages in some circumstances or for some countries. Possible disadvantages from common action will be noted where relevant.

*Possible participants and vehicles for action*

Options for possible participants will be suggested for the measures, for each extent and type of commonality considered (as described in the previous section). In many cases, measures will be implemented by governments; in other cases through private sector participants. Measures could also involve public/private partnerships. Possible interest by non-Annex I Parties to participate in the measure will be considered where relevant.

Options for vehicles for action will be given for each extent and type of commonality considered. In some cases governments might achieve a policy objective directly through the instruments available to government. Even if industry or local government are to be the main implementers of the measure, governments may still need to harness their input through negotiating voluntary agreements, providing information on the benefits of the action, or passing a law requiring action. In these cases, the vehicle for their action needs to be clearly specified (e.g. business consultative mechanism, business partnerships through industry associations, twin city agreements by municipal governments). In some cases, the measure could be carried out by either government or non government participants or both, with each scenario involving different vehicles for action. Vehicles could be existing and/or new institutions that could be used to implement the measure. Examples of vehicles are:

- a) International organisations e.g. ICAO, IMO, IEA implementing agreements on energy efficiency partnerships;
- b) Co-ordinating body e.g. International Organisation of Standardisation (ISO 14000);
- c) Legal framework e.g. European Union directives;
- d) International treaties e.g. Energy Charter;
- e) Voluntary business partnerships;
- f) Industry associations e.g. IATA;
- g) National government or inter-governmental agreements.

### *Greenhouse gas emissions reduction potential<sup>4</sup>*

The following information will be provided (for each extent and type of commonality considered) for each measure to be studied:

- a) Assumptions about the emissions path if the measure were not implemented;
- b) The key assumptions underlying the estimates;
- c) The level of confidence associated with the estimates (in the analyst's opinion, or from a sensitivity analysis);
- d) The information that is needed for the estimates and whether it is available or not;
- e) The type of analysis or modelling that is relevant to assessing the effects of the measure.

Preliminary estimates of the effects of the measure on emissions will be made. Where information is available, the incremental emissions reduction potential of the measure will be presented as estimates of individual greenhouse gases in tons of CO<sub>2</sub> equivalent per year for the years 2000, 2005, 2010, and 2020. If possible, the full technical potential of the measure will also be given and indirect effects of the measure on the greenhouse gas emissions, such as flow on effects to other sectors, or possible effects in countries not participating in the common action, will be discussed. Where relevant, specific examples of these indirect effects will be given.

### *Economic effects (costs and benefits)<sup>5</sup>*

The following information will be provided (for each extent and type of commonality considered) for each measure studied:

- a) The key assumptions the economic estimates are based on and definition of the costs and benefits that have been considered;
- b) The level of confidence associated with the economic estimates (in the analyst's opinion, or from a sensitivity analysis);
- c) The information that is needed for the economic estimates and whether it is available or not;
- d) Information on the variation of economic effects from country to country and factors influencing these differences;
- e) The type of analysis or modelling that is relevant to assessing the economic effects of the measure;

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Other environmental effects are covered under "other policy goals."

Other effects are covered under "other policy goals."

- F) The macro-economic effects (including effects on employment and trade, GDP, and investment) will be considered.

Preliminary assessments of the economic effects (e.g. high/medium/low) will be given. Where information is available, the incremental cost of the measure will be estimated in US dollars per ton CO2 equivalent. The type of economic effects included in the analysis will be specified: cost to governments of implementing and enforcing the measure; cost to industry; cost to the individual. Both economic costs and economic benefits (as in the case of "no regrets" measures) will be noted.

#### *Political feasibility*

The study will discuss political and institutional issues associated with the measure, such as whether the measure is likely to be politically sensitive (to governments, other participants, interest groups). Where relevant, the analysis will identify the political feasibility of measures (including variations on the extent and type of commonality), in different national and regional contexts, and comment on the relative merits of the measure for the groups most affected by it (governments, industry, interest groups).

#### *Other policy goals*

The effects (benefits and costs) of the measure on social and environmental policy goals will be discussed for each extent and type of commonality studied.

#### *Barriers to successful implementation and options for addressing them*

The study will address questions related to the implementation of the measure, for example: whether there is a market for new technology developments; whether the necessary institutions exist; whether new infrastructure or behaviour change is needed before the measure can be successful; and what additional barriers might be relevant.

#### *Time period*

The study will address the time needed for researching and planning the measure; the length of time it might take to implement the measure (e.g. to negotiate the voluntary agreement, or have legislation in place for standards); and when the effects of the measure are likely to be realised: immediately, to the year 2000, 2005, 2010 and 2020. This section will address whether measures are expected to give short-term emission reduction only, long-term emission reduction potential only, or a mixture of short and long term effects (for example a measure may have some effect on emissions in the short term but much greater effect in the longer term).

#### *Impact on other countries*

The impact of the measure on non-Annex I countries and non-participating Annex I countries, in terms of costs, trade impacts, greenhouse gas reduction, social, environmental and other impacts will be assessed to the extent possible. The trade impacts on non-Annex I parties, including changes in foreign investment, are of particular importance.

#### *Conclusion*

The conclusion will focus on whether the measure is a good candidate for common action and why.

Annex I Expert Group on the FCCC

List of policies and measures for the Common Action study

	<b>Tranche I (note 1)</b>	<b>Tranche II (note 2)</b>
<b>Sustainable transport</b>	CO2 emissions from vehicles.	Infrastructure issues. Alternative fuels. Other issues.
<b>Energy market reform</b>	Market barriers/market access. Full cost pricing.	Penetration of renewables, including R&D.
<b>Economic/fiscal instruments</b>	Subsidy removal for electricity and transport sectors. Taxation (i.e. carbon/energy).	Subsidy removal for electricity and transport sectors. Bunker fuels.
<b>Demand-side efficiency</b>	VA with industry. Product standards.	VA with electric utilities (end use). Labelling.
<b>Sustainable agriculture/forestry</b>	Development of options for best practices for GHG reduction.	Best practice guidelines.
<b>Other</b>	Financing energy efficiency in EITs.	Conversion efficiency. VA with electric utilities (generation). Other GHG reduction opportunities in EITs. Other issues from tranche 1.

Note 1: Products before COP2 (July 1996)

Note 2: Products after COP2

## COMMON ACTION STUDY SCOPING PAPERS

### Annex I Expert Group on the FCCC

January 29, 1996

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##### **Sustainable transport**

CO2 emissions from vehicles

##### **Energy market reform**

Market barriers/market access.

Full cost pricing

##### **Economic/fiscal instruments**

Subsidy removal for electricity and transport sectors.

Taxation (i.e. carbon/energy).

##### **Demand-side efficiency**

Voluntary Agreements with industry.

Product standards.

##### **Sustainable agriculture/forestry**

Development of options for best practices for GHG reduction.

##### **Other**

Financing energy efficiency in EITs

The following scoping papers briefly describe the work being undertaken on each measure in tranche I of the Common Action Study. These papers are likely to change in response to the exigencies of each individual project. They will be subject to revision once Annex I Parties have had opportunity to consider the results as they emerge.

## SUSTAINABLE TRANSPORT

### Restrict CO<sub>2</sub> Emissions from Road Vehicles *Tranche 1*

#### **Context:**

Light duty passenger vehicles and heavy duty trucks together constitute one of the most rapidly growing sources of greenhouse gas emissions. Emission reductions are technically possible, but have not been achieved in any OECD country on a sustained basis. Annex I countries have implemented a wide range of measures that can contribute to improving vehicle fuel economy and discouraging transport energy use. These measures include fuel taxes, various types of vehicle tax and licence fees, voluntary agreements with vehicle manufacturers, driver training and information programmes, and fuel economy standards. None of these measures are closely co-ordinated although many countries determine their policies with reference to those of other countries in their region. Some attempts have been made to negotiate common action in this area. One such attempt was made by the European Commission, whose Motor Vehicle Emission Group discussed common fuel economy measures at some length during the early 1990s.

In a more recent initiative ECMT Member-country transport ministers and the European automotive industry have issued a "Joint Declaration," in which they commit to work together "to substantially and continuously reduce the fuel consumption of new cars sold in ECMT countries" and "to manage vehicle use so as to achieve tangible and steady reductions in their total CO<sub>2</sub> emissions". In the declaration they undertake jointly: to examine the possibilities for a car labelling system; to develop criteria for information technology in vehicles; to improve co-ordination of R&D; to develop information/education campaigns aimed at vehicle users, dealers and importers; and to study the environmental value and economic feasibility of a variety of measures aimed at reducing vehicle CO<sub>2</sub> emissions. They established an "Informal Industry-Government Working Group" to collect and share information and data that would help to establish a common understanding of the trends and influences on transport CO<sub>2</sub> emissions, and to monitor progress towards achieving the objectives of the Declaration.

#### **Policy Objectives:**

Tranche I: to reduce CO<sub>2</sub> emissions from road vehicles through cost-effective measures that encourage the development and use of more energy-efficient vehicles and changes in vehicle use.

Tranche II: to reduce CO<sub>2</sub> emissions from road vehicles through cost-effective measures that encourage improvements in infrastructure; use of alternative fuel; or changes in transport mode.

#### **Description of measures for analysis:**

The case study will examine the following options for common action. They could build on the existing ECMT declaration and the monitoring and review procedure it established, or alternatively could involve developing new agreements.

(a) Countries agree to adopt packages of measures aimed at achieving negotiated CO<sub>2</sub> reduction targets. The actual combination of measures would be chosen by the individual countries. They might include any in a wide range of fiscal, regulatory, planning, information/education or other measures. The case study will review existing country studies, examining the use of targets as well as the costs and effects of packages of measures: the packages examined will be determined by the studies available. The Secretariat will begin to address this option in Tranche 1, collating readily available case study material and providing an initial assessment of the potential for, and cost-



effectiveness of, common action in this area. The option will be addressed more thoroughly in Tranche 2.

(b) Specific measures could be undertaken by governments individually or jointly. The following options will be considered in Tranche I:

(1) Vehicle sales taxes on a sliding scale according to fuel economy in standard tests, for cars, other light duty passenger vehicles, and light and heavy duty goods vehicles will be studied. This concept includes "feebates", where purchasers of the most efficient vehicles receive a tax rebate while purchasers of less efficient vehicles pay a tax. Some countries have already introduced such a tax.

(2) Fuel economy standards, such as "corporate average fuel economy standards" (CAFE) will be considered. CAFE standards are defined here as statutory minimum levels of average fuel economy (litres/100 km) in tests (which would have to be defined and agreed for an international standard), of vehicles of a given class (cars, other light passenger vehicles, light and heavy trucks), sold by each manufacturer into a national or regional market. In an extension of the CAFE concept, the national CAFE level is decreased as the number of vehicles sold increases. CAFE levels can also be made tradable between manufacturers, and credits can be given for sales of alternative fuel vehicles. Another extension combines CAFE with feebates. Other types of standard will also be reviewed, including statutory minimum levels of fuel economy for vehicles sold into a national market — such standards may be scaled according to vehicle weight, emission levels, or other factors. The study will also consider voluntary agreements between governments and car manufacturers to achieve fuel efficiency improvements.

(3) A common level for, or a common increase in, taxes on fuels purchased for use in road vehicles in Annex I countries will be studied. There is considerable experience of fuel taxation, and voluminous analysis exists of the effects on vehicle use and new-vehicle efficiency. While attempts to agree common levels of fuel tax have so far been unsuccessful, minimum excise duties have been set in the European Union. A common action might be defined, for example, by setting minimum excise duties on fuels, by an agreement to tax gasoline and diesel fuel at the same level, an agreement to raise fuel taxes by some percentage per year, or an agreement to raise fuel taxes to reflect the full budgetary costs of full social costs of road use to drivers.

#### **Approach/Methodology:**

Measures to improve vehicle fuel economy and reduce overall fuel use have been extensively discussed and analysed, and it is hoped that delegates can easily provide studies carried out in their countries. Some of this analysis is already reflected in OECD/IEA/ECMT literature. Work for this case study will involve reviewing the literature on each of the measures, identifying areas of agreement and areas of uncertainty on their costs and effectiveness, and carrying out additional analysis on the advantages of, and possibilities for, common action. The analysis will be carried out by IEA/OECD/ECMT in-house experts in consultation with delegates and experts in Annex 1 countries. Co-ordination with the ECMT's "Informal Industry-Government Working Group" is essential.

Delegates and other experts are asked for their comments and suggestions, in particular for their contributions of existing national and international analysis, which is needed by the beginning of January 1996. A small expert meeting (about 10 people) will be held at the OECD during January 1996, with participation of transport sector policy analysts, and other experts. This meeting will review and discuss the draft study, after which it will be revised and circulated to delegates and other experts in mid-February 1996.

**Possible participants and vehicles for action:**

The study will identify, from national communications, IEA policy reviews, IEA statistics and any new information supplied by delegates, current measures to encourage fuel economy in Annex I countries, and current levels of fuel economy in those countries. International initiatives in this area have been attempted or are anticipated at: the European Conference of Ministers of Transport, the European Commission and the UN Economic Council for Europe. These organisations are possible vehicles for action and will be invited to send representatives to the expert group. North American and Pacific region government experts will also be invited, and will be invited to offer suggestions regarding institutions whose involvement would be important to them. The OECD and IEA are also possible vehicles for action.

## ENERGY MARKET REFORM

### Market Barriers/Market Access *Tranche I*

#### Context:

Energy markets have in the past been characterised by a high degree of Government intervention, and many Annex 1 Governments are now in the process of reforming their role, especially in electricity markets. Reform is not usually motivated by the aim of greenhouse gas mitigation, and international agreement on the details of market reform is likely to be hard to achieve, as indicated by experience in the European Union and in the negotiation of the Energy Charter. Nevertheless, market reform is often identified as a key to changes in energy supply and consumption patterns that would result in lower greenhouse gas emissions, by introducing greater efficiencies, avoiding distortions and creating a level playing field for such techniques as combined heat and power production (CHP), renewables and demand-side management (DSM). The precise effect of a particular market reform measure will, however, be highly dependent on the nature of the measure introduced, the structure of the market subject to reform and prevailing economic circumstances. In some cases, however, market reform can have a significant impact on fuel use and greenhouse gas emissions - for, instance, the introduction of competition in the UK electricity market has led to a major shift from coal-fired to gas-fired generation and a consequent reduction in projected greenhouse gas emissions from the electricity sector. This case study will look at all fuels, but focus particularly on the electricity supply industry (ESI), which is indicated in studies in many OECD countries as one of the areas where greenhouse gas mitigation can be most cost-effective. Market reform, although relatively quickly implemented, may take decades to have its full effect on emissions.

The study on removal of market barriers and provision of market access as measure for common action attempts to identify those barriers to market access which, if dismantled, could yield significant reductions in greenhouse gas emissions. Since market entry barriers have already been dismantled to a large degree in the oil market (in IEA countries), and since past work has shown that in those cases likely to be significant, dismantling market access barriers in the coal market do not lead to major greenhouse gas abatement *unless accompanied by dismantling of further distortions downstream* (predominantly in the electricity market), this study will focus mainly on the grid-based energy industries, where market entry barriers have been ubiquitous in the past.

The Market Barriers/Market Access paper will focus on those types of government intervention which create *formal market access barriers* to new competitors, input fuels, or generating technologies, such as exclusive supply licences or exemptions from competition law, or *where regulatory practice erects economic barriers to market entry*, such as mechanisms to recoup environmental investment (like flue gas desulphurisation) which would become obsolete under competition. This study will not address subsidies in the sense of direct budgetary outlays, although subsidy removal forms part of the issue of market reform; these are dealt with in the study on subsidies removal under the Common Action project.

The Market Barriers/Market Access study focuses on *barriers to market entry, not on market failure*. Market failure has been one of the rationales for regulating industries and erecting entry barriers. This paper focuses on areas where market failure is no longer regarded as justifying entry barriers. It will not seek to establish the circumstances where this may be the case or the balance of advantages in each case - i.e. it is not based on the assumption that liberalisation is always the best solution, but meant to elucidate the possible environmental consequences of liberalisation where it occurs. Government-imposed demand-side management (DSM) programmes cannot be considered in themselves as a measure to dismantle barriers to

market access. Therefore, the paper will focus on DSM only to the extent that barriers to entry create barriers to DSM.

### **Policy Objectives:**

To reduce greenhouse gas emissions associated with energy, and particularly electricity, supply and use through packages of measures that improve the economic performance of energy markets by addressing market barriers, reducing trade barriers, and promoting greater market access.

### **Description of the measures for analysis:**

One of the primary aims of the study would be to identify particular measures, within the broad headings of market reform and market access, which would have the greatest potential for reducing greenhouse gas emissions. More specifically, it will be to identify those barriers to the free operation of market forces which significantly discourage the use of clean fuels or energy efficiency. The barriers to be examined will include:

Market entry barriers. The grid-based part of the electricity supply industry is a natural monopoly and therefore discourages competition except in special cases, but governments in all IEA countries have in the past added statutory entry barriers to the industry by providing exclusive supply rights in return for obligations to supply all ultimate consumers. Dismantling these entry barriers provides general, non-discriminatory access for all economically viable supply options, including those based on renewable energies. In the longer run, free markets for electricity and generating equipment could lead to more widespread use of modern, highly efficient technology where this is also cost-effective. This is particularly important in countries which have had “buy domestic”-policies in place, or which have not had access to modern technology, such as the countries of the former Soviet Union (FSU). Note, however, that many countries have put particular policy measures in place to promote the use of renewable and/or indigenous energy sources; a freer power market will require adaptation of these policy instruments. Therefore it is not obvious from the outset whether a competitive power market will on balance lead to an increase or reduction in the use of renewable energy; it would be part of the study to analyse this.

Regulatory or government imposed market distortions. Governments have in the past intervened in the power market's operation in multiple ways. The need to exert some control over monopoly utility pricing, for example, has in some cases been used to keep prices low even in the face of rapidly increasing input cost, as in Italy after the oil crises, or to favour certain consumer groups through cross subsidies, often in favour of residential consumers. Glaring examples for this can again be found in the FSU, but the rather pronounced divergence between comparative residential and industrial electricity rates throughout industrialized countries indicates a need to investigate the matter for IEA countries as well. Competition does not eliminate governments' ability to influence fuel choice, but requires more transparent policy instruments, the cost of which, economic as well as environmental, will be much clearer to society. It is therefore less likely that governments will be able to impose fuel choices which dramatically increase greenhouse gas emissions.

Trade barriers. Barriers to electricity trade have been created by a number of measures: exclusive supply areas granted by governments, national, regional or local, restrictions or tariffs on import and export of power, vertical integration, “demarcation” contracts between generators, or long-term exclusive supply contracts between generators and distributors of electricity. These barriers may preclude optimal use of existing resources, and delayed the introduction of modern, more efficient technology in a number of cases. Moreover,

competition eliminates the possibility to shift most of the market's risk towards consumers, who have had to foot the bill for all utility investments. Competition could also remove any incentive to build up excess capacity and then promote vigorous electricity consumption growth later on to justify the investment.

**Barriers to consumer choice.** The lack of competition in the electricity supply industry and its market structure have deprived consumers of a number of choices which are commonplace in other industries with a multitude of competing suppliers (in these markets consumers can, by choosing the product they buy, influence the production process used, and thus their environmental impact, *even if it is more expensive*). Consumers have rarely been offered this choice in the ESI so far. Dismantling of entry barriers will enable consumers to conclude direct contracts with environmentally benign generators, even if the power they produce is more costly. Consumer choice has an additional dimension, which relates to the choice *not to consume* electricity. Starting from the insight that most consumers do not need electricity but its services, such as lighting, heating, cooling, motive power etc., utilities have carried out demand-side management (DSM) programmes in North America, and so-called energy service companies (ESCOs) have spread to most other IEA countries. The study will address the future of DSM in competitive power markets, although a fuller treatment of the issue of DSM is foreseen for tranche II of the Common Action Project.

#### **Approach and Methodology:**

The analysis will take account of the complex nature of regulatory and market reform and their impacts: precise quantitative modelling of the outcome is usually impractical. It will aim to be selective: to draw on existing case studies and analyses and expert judgements to produce a list of particular market reform measures worth more detailed examination in this context. For those measures, it will use existing material or, where this is lacking, simple modelling approaches, to estimate the likely impact in terms of greenhouse gas emissions.

The analysis would draw on results from the IEA projects on the environmental implications of improved electricity trade and the IEA project to identify energy market interventions. Additional analysis, addressing the extent to which case study results can be generalised and the scope for common action, would be carried out by the OECD and IEA secretariats in consultation with delegates, drawing on existing and ongoing work, as well as the academic literature and conference proceedings.

#### **Rationale for Common Action**

The advantages (or disadvantages) of common action will naturally depend on the specific measures and will have to be articulated in more detail in that context. Broadly speaking, however, the rationale for common action is to gain political support for a particular market reform measure. Countries introduce trade and market barriers for specific policy reasons: the barriers have their own political constituency and supporters. Common action can help meet political resistance to reform by demonstrating that other countries are taking similar action so that a "level playing field" is being created, and underlining the wider public objective, in terms of environmental protection, in addition to the narrower economic goals. The study will aim to throw light, by the analysis described, on costs, macroeconomic effects and greenhouse gas reduction potential.

## ENERGY MARKET REFORM

### Full Cost Pricing

Tranche I

#### Context:

Free and competitive markets maximize economic welfare if all costs of production are accounted for. Sometimes, however, prices do not include *all* the cost of production. This holds for sectors with sometimes substantial unaccounted for environmental impacts such as the power generation sector. Without further action, this leads to inefficiencies, since private actors do not take these costs into account. In order to eliminate these inefficiencies, instruments have been designed to include these environmental, or external, costs into private production and consumption decisions. This is referred to as “full cost pricing”. Full cost pricing thus reflects *all* resource costs of the final product, be they traded commodities or public resources such as environmental goods. In other contexts, full cost pricing is also referred to as the “internalization of external costs”.

Recently published studies by the European Commission, the U.S. Department of Energy and the consultancy Hagler-Baily, however, have established methodologies and ranges for local and regional external costs of electricity production. These consist mainly of health costs and output losses due to increased emissions of air-borne pollutants such as particulates, SO<sub>2</sub>, NO<sub>x</sub> and ground-level ozone formation. There is, on the other hand, little agreement on the potential external costs from climate change or from large-scale nuclear accidents. Because of this uncertainty full cost pricing is most appropriate for local and regional external costs. It is in this context, that full cost pricing will be studied, with links to the energy market reform study in the framework of the common action project.

Other than by the direct measurement of damages and their evaluation in economic terms, damage costs can, in principle, also be determined by the cost of control approach. In this approach the damage costs are assumed to be equal to the marginal abatement costs at the point of the emission target. It therefore depends on an *a priori* defined emission reduction target. The setting of emission caps depending on the costs of control is a frequently and successfully applied policy in member countries. The Secretariat will pursue the possibilities of case studies on the effects on the emissions of greenhouse gases of quantitative emission targets for local and regional pollutants such as particulates, SO<sub>2</sub> and NO<sub>x</sub>.

#### Policy Objective:

The policy objective is to reduce the emissions of CO<sub>2</sub> and other greenhouse gases through the full cost pricing of energy production, transmission and consumption to the extent that local and regional effects on morbidity, mortality, and production are included in the final price through appropriate instruments.

The reflection of full costs, for instance through emission fees on pollutants such as particulates, SO<sub>x</sub>, NO<sub>x</sub> and other precursors of ground-level ozone, would have an effect on the relationship between inputs and outputs, on the choice of fuels, as well as on the specific technology of production processes. The primary objective is to reduce local and regional impacts. The strength of the impact on CO<sub>2</sub> emissions will depend, on the degree to which CO<sub>2</sub> emissions and the emissions of local and regional pollutants are complementary, or to which degree local and regional pollutants can be reduced without affecting CO<sub>2</sub> emissions.

### **Description of measures for analysis:**

There are several instruments to achieve full cost pricing. For all instruments, the problem to generate the appropriate information about damage costs is the main stumbling block, as external costs are, by definition, difficult to assess. Methodologies exist to solve some of the problems. In any case, the extent of the use of full cost pricing will hinge on the degree to which the information problem will be solved:

1. The standard instrument is the imposition of a fee, or charge, on the activity in question at the level of the (marginal) external cost it causes. At the appropriate level, such an emissions fee will increase general welfare. It might, however, even if recycled through a reduction of general taxes, have undesirable distributional effects.

2. Regulations and technical standards are frequently used instruments in this context, but do not achieve complete full cost pricing. They have, however, contributed in the past to both environmental improvement and technical progress. Voluntary agreements are a special kind of flexibly manageable emissions cap administered by industrial branches themselves.

Other instruments are the creation of markets such as permit trading or the specification of private property rights. In particular, permit trading is a policy instrument employed in some member countries. However, the present exercise does not extend to the study of permit trading.

### **Approach and methodology:**

The scope of the analysis is to qualitatively assess the feasibility and the likely impacts of full cost pricing in the power generation sector in the light of the state of the art of current research on the topic. The analysis would then fall into two distinct steps:

Step 1: to determine on the basis of a literature review the most robust assessments of “external” costs of air-borne pollutants with local and regional impacts, such as particulates, SO<sub>x</sub>, NO<sub>x</sub> and ground-level ozone, including available case study material. The three policy instruments would be discussed in this connection with respect to their efficiency and cost.

Step 2: to determine on the basis of a policy based on a fiscal reflection of damage costs (policy instrument 1) and with the help of a quantitative linear programming model such as MARKAL the results of the introduction of full cost pricing in the power generation sector and its impacts on energy consumption. This would lead to regrouping of fuel and technology choice under the assumptions of the model with potentially interesting results regarding emissions of both local and regional pollutants as well as of carbon dioxide. The time horizon would be medium to long-term (2000, 2005, 2010, 2020). The realisation of Step 2 would depend on the availability of consultants in the short time horizon of the project and on the availability of funding for a consultant.

The issue of full cost pricing is also directly, or indirectly, related to a series of ongoing projects at the IEA and the OECD. Among the most important are the upcoming second IEA/OECD/EC-Conference “Instruments for Environmental Improvement with Structural and Technological Change in the Electricity Sector” and the “OECD Project on the Environmental Implications of Energy and Transport Subsidies”.

## **ECONOMIC/FISCAL INSTRUMENTS**

### **Subsidy Removal for Electricity and Transport Sectors *Tranche 1 and 2***

#### **Context:**

Electricity and transport are the two most rapidly growing sectors of energy use. Both of these sectors have been identified as areas where removal of subsidies might result in lower greenhouse gas emissions, by introducing greater efficiencies, avoiding distortions and creating a level playing field energy-efficient technology and alternative energy and transport forms. Many Annex 1 countries are in the process of reviewing and removing subsidies, but any common action in this area would depend on agreement on the definition of what constitutes a subsidy, and on what form of subsidies were to be removed. This study will address a wide range of subsidies, of a variety of types, that affect greenhouse gas emissions associated with electricity and transport.

Results from OECD assessments have been mixed: they indicate that

- Where subsidies and other interventions protect the market for fossil fuels such as coal from competition from natural gas, renewables and more efficient supply options, their removal can have substantial environmental and economic benefits.
- Consumer subsidies such as tax exemptions for residential energy consumption are likely to lead to higher energy use and hence greenhouse gas emissions. However, much of the impact of tax exemptions is likely to be through substitution among energy forms. These substitution effects need to be understood to evaluate the greenhouse gas impact of removing tax exemptions.
- Subsidies to goods that complement energy consumption — for example, tax credits for home loan interest payments or the provision of free parking — may have greater effects on greenhouse gas emissions than direct energy subsidies.
- In most cases where removing subsidies leads to reduced greenhouse gas emissions, other environmental impacts are also reduced.
- On the other hand, some types of subsidy have environmentally-friendly outcomes. For example, low-interest loans for the electricity supply industry may lead to lower greenhouse gas emissions where they make capital-intensive non-fossil fuel energy sources competitive with fossil fuels. Subsidies to energy efficiency improvements and renewable energy sources can also reduce greenhouse gas emissions.
- In many cases, even where removing subsidies does not lead directly to reduced greenhouse gas emissions, it does become cheaper and easier for the electricity supply industry to respond to other incentives to reduce greenhouse gas emissions.

Subsidy removal is likely to be a slow process: a common action could be initiated over a one-to-two-year period but might take up to 20 years to have its full effects. On the other hand, subsidy removal would accelerate responses to other GHG mitigation measures.

#### **Policy Objectives:**

To reduce greenhouse gas emissions associated with electricity and transport through the reform of subsidies in markets associated with the electricity and transport sectors.



## **Description of Measures to be analysed:**

### ***Electricity***

(1) Budgetary subsidies, such as: government grants towards the operation, investment or R & D costs of the electricity supply industry or those of its suppliers of fuel, services and equipment; tax exemptions/differential taxation of fuels and electricity; below-market-price government financing and government collateral for loans for energy supply projects that affect electricity markets. The study will focus on subsidies whose removal is most likely to offer environmental benefits — i.e. those which tend to increase consumption of fossil fuels, or which tend to increase the carbon intensity of the fuel mix.

(2) Measures, or packages of measures, that result in domestic energy suppliers receiving prices that are higher than would be paid for imported energy. (note: indirect price supports will be addressed in the market reform study, but will also be discussed here, partly because removal of budgetary subsidies may be more effective when linked to removal of other supports for domestic producers, but also because many of the existing studies treat direct and indirect supports together). Again, the study will focus on price supports for energy forms such as deep-mined coal, whose use tends to result in higher greenhouse gas emissions than the lower cost alternatives.

### ***Transport***

(1) Budgetary subsidies to the road transport sector, in the form of net excesses in government spending over receipts from users. Government spending is mainly for provision and maintenance of roads but also for services such as policing and road cleaning. Receipts from users include tolls, parking charges, and special taxes on fuel and vehicles (although these may have originated for general revenue-raising purposes rather than to provide road funds), but will exclude taxes levied at normal rates (e.g. sales or value-added taxes).

(2) Cross-subsidies between road users in the form of different taxation of diesel and gasoline, or charge structures that do not fully reflect the costs associated with different types of road use (urban/rural, car/truck). The issue of diesel fuel taxation will be addressed from a different perspective in the study on “Restricting CO<sub>2</sub> Emissions from Vehicles”.

(3) Indirect or implicit subsidies, including the failure to internalise the full social costs of road use.

(4) The study will also briefly explore the existence of subsidies that reduce greenhouse gas emissions, such as those to alternative fuels and transport modes.

### **Approach/Methodology**

As the exact package of measures involved in subsidy removal is highly country-specific, the analysis of costs and effects of packages on GHG emissions has to be based firmly in country case studies. Considerable analysis has already been carried out on this issue, so that it should be possible to base the analysis mainly on existing work, but this would be greatly aided by the provision of existing national studies by delegates. The first tranche of the analysis will draw on the OECD Project on the Environmental Implications of Energy

and Transport Subsidies (hereafter the "OECD Subsidies project") which includes several country case studies examining the environmental and economic effects of removing subsidies. The authors of those studies may be asked to carry out some additional modelling or other analysis to meet the specific needs of the Annex 1 Expert Group. The analysis will also draw on the IEA project to identify energy market interventions including subsidies. Additional analysis, addressing the extent to which case study results can be generalised and the scope for common action, will be carried out in the second tranche by the OECD and IEA secretariats in consultation with delegates, drawing on existing and ongoing work, as well as the academic literature and conference proceedings. The analysis will be peer reviewed by delegates and the existing OECD expert group on subsidies.

**Advantages from common action.** Three levels of common action might be examined:

(1) An agreement among countries engaged in subsidy reform, or interested in undertaking such processes, (i) to collect, share and monitor information on subsidies in their electricity and/or transport sectors. Information might include: descriptions of all government interventions in the sector including grants, loans, taxes, regulations, planning constraints etc.; detailed information on fuel, electricity and vehicle pricing and taxation; detailed economic and environmental performance indicators for the electricity and transport sectors. (ii) to carry out and share analysis of the effects of their electricity and transport policies on greenhouse gas emissions, and of the costs of these policies. The agreement could be reached in 1997, with a reporting and review format agreed during 1998 and implemented by 2000.

(2) As measure (1), but includes an agreement among countries engaged in subsidy reform to adopt targets for subsidy reduction according to some agreed metric such as the producer subsidy equivalent (PSE) or some measure of sectoral social cost balance.

(3) An agreement among countries to remove certain specific types of subsidy.

The Secretariat will review both the quantitative information from international modelling studies, and qualitative information derived from national studies, on the advantages for cost-effectiveness if subsidy removal is co-ordinated.

**Possible participants and vehicles for action.** The study will review existing electricity-related subsidies in Annex I countries, and identify countries that are currently in the process of removing subsidies. It will also identify international institutions with a possible role in this area, including: the European Energy Charter; the International Energy Agency through its shared goals and policy review process; and the World Trade Organisation.

## ECONOMIC/FISCAL INSTRUMENTS

### Taxation (i.e. carbon/energy)

*Tranche 1*

#### **Context:**

Carbon/energy taxes are implemented to internalise the threat of climate change in economic choices. The principal reason for a carbon/energy taxation is to try to incorporate in the energy prices a marker that signals the energy and carbon contents of different sources. It encourages shifts in activity towards lower carbon/energy intensities without dictating what those shifts should be or how rapidly they should take place, and provide incentives for the development and penetration of energy efficient technologies. So far, *energy taxes* have mostly been used as means to raise revenues, and have been applied on energy uses with low short-term price elasticities (e.g. transportation, residential, and commercial). Carbon/energy taxes would be implemented to *reduce* carbon emissions and energy consumption on which they are based. The impact of carbon/energy taxation would differ considerably from that of oil shocks, because revenues would be raised and used domestically, and increase in energy prices would be anticipated. In addition to taxation, Annex I Parties are already implementing a wide range of measures that contribute to CO<sub>2</sub> emission reductions, enabling carbon/energy taxation to operate more efficiently.

Some Annex I countries have already had energy taxes at various levels in place for some years, which have contributed to improvements in the energy intensity of their economies. Different levels of existing energy taxes will be discussed when considering taxation of carbon/energy as a measure for common action, and will be taken into account to the extent possible in estimating the effects of carbon/energy taxes on greenhouse gas emissions.

#### **Policy Objective:**

To reduce CO<sub>2</sub> and other greenhouse gas emissions from fossil fuel use, as well as generally improve energy efficiency.

#### **Description of measures for analysis:**

The nature of such taxes (on CO<sub>2</sub>, all greenhouse gases, carbon/energy or a general tax on energy), their level, and the use of the tax revenues generated are key elements of the study. Existing tax levels will be taken into account, as well as how they internalise other externalities. The following taxes could be studied:

(1) Carbon and energy tax, ranging from all-carbon to energy taxation. The potential for carbon offsets, through afforestation, should also be considered in the context of the taxation scheme, and the use of the revenue will be considered.

(2) Re-structuring energy taxes on fossil fuels to account for their specific carbon and GHG content.

(3) Recycling tax revenue - the revenue recycling schemes to be reviewed from existing literature include: lower taxes on labour; investment tax credits; and/or the reduction of government deficits. In addition funding energy efficiency improvements may help alleviate the impacts of increased carbon/energy taxation. Like any recycling option, this option is not exclusive of (1) and (2), since part of the revenues raised by ecotaxes could be used in such a manner.

## **Approach and methodology:**

The analysis will be based on a review of analyses of current experience with carbon/energy taxation, as well as studies estimating the effects of potential carbon/energy taxation for other regions. We aim to focus on the following aspects:

Different starting points (resource base of the economy, GDP structure, existing tax levels on energy, CO<sub>2</sub> emissions per capita or GDP, policy context, patterns of human settlements); Cost: from micro- (costs to principle stakeholders, distributional issues) to macro-economic effects, including impacts on competitiveness; Different time horizons, especially with regard to reduction levels and costs: transition costs, long-term costs and how they are determined; Recycling options (lower payroll taxes, investment tax credit, government deficit reduction, or measure (3) above); Exemptions for some industries under different levels of commonality; Level of commonality; Limitations of current exercises: GHG coverage, coverage of mitigation options (such as sinks enhancement), assumption of efficient energy markets vs. market barriers, assumptions on long-term cost of technology; Policy realism: key in considering carbon/energy taxes for countries with economies in transition where energy prices do not yet fully reflect marginal cost of production.

*Context:* This section will present a fossil-fuel tax topography by country/region, and emphasise different starting points. Briefly describe existing carbon taxation schemes, as implemented in some European and Scandinavian countries, on the background of other existing energy taxes in these and other countries.

*Rationale for common action:* The advantages and disadvantages of common carbon/energy taxation measures will be considered, including considerations of different starting points and of how these could affect the feasibility of various options for common action.

*Greenhouse gas reduction potential:* This question will be approached for each type of carbon/energy taxation (from all-carbon to all-energy taxes, based on available information).

*Costs and macroeconomic effects:* Cost estimate (especially GDP) is a key dimension in the existing literature on carbon/energy taxation. We will also explore the effects of common taxation on competition.

*Political feasibility:* The study will draw on current experience in countries where carbon/energy taxation has been discussed as an option, where it has actually been implemented, and in that case under what form. We will look at how to minimise the impacts of introducing common carbon/energy taxes.

*Other policy goals, barriers to implementation:* Carbon/energy taxation may contribute to other policy goals, for instance through tax recycling schemes, and through the reduction of other externalities. Other environmental externalities of energy use will be covered in the study on Full-Cost Pricing.

*Time period:* Results should address both short-term “transitory” periods (2000, 2005) and longer term (2010, 2020).

*Impacts on other countries:* Carbon leakage (increased emissions outside the region) has been a major argument against pursuing emission reduction through carbon/energy taxes, which are said to harm competitiveness and entail de-localisation of energy-intensive industries. How can participating countries limit such carbon leakages? Can taxes on the carbon content

of imported goods be implemented under current international trade treaties? We will review existing literature and shed some light on this issue based on trade policy expertise within the OECD family.

**Synergy with OECD/IEA/ECMT work:** The IEA has an ongoing item in its program of work on economic instruments to reduce energy-related environmental impacts, including *Economic Instruments and Climate Change*, which does not include new modelling work, but includes a review of existing literature on carbon/energy taxation. Also, the OECD Group on Economic and Environment Policy Integration has already provided work on ecotaxes and on the income distribution implications of economic instruments used for climate change policy. Trade and environment issues, such as carbon leakage and implementation issues are also under study at the OECD. We will take the opportunity of experience of carbon taxation in Northern European countries to assess above-mentioned market impacts, which are not handled explicitly by current models. Such ex-post analysis of the effects of carbon/energy taxes will be provided by governments of countries where such taxes have been implemented, as well as information on the actual design of the taxation schemes (level, exemption, etc.) Appropriate modelling work cannot be initiated to address measures (2) and (3) for the purpose of this study in the very short time available. Restructuring energy taxation, based on carbon/energy content of fuels, has been studied previously using GREEN. This, and other work, will provide the basis for the analysis of measure (2). We may only be able to study measure (3) qualitatively.

**Context:**

Voluntary agreements have attracted interest among policy makers as a low cost, flexible tool for achieving reductions in greenhouse gas emissions from industry. Evidence on the effects of voluntary agreements is still scarce, and they range from relatively informal arrangements to agreements with a high degree of structure that are combined with incentives (or threats) such as technical assistance to identify energy savings or exemption from carbon taxes. Voluntary approaches with legal agreements (such as those found in the Netherlands) may take longer to negotiate, and incentives can be expensive, so there is likely to be a trade-off between the effectiveness and cost of voluntary agreements.

Three industries will be considered, which were selected to provide broad coverage of the range of GHG emissions from industrial sources:

1. iron and steel (CO<sub>2</sub>)
2. aluminium (CO<sub>2</sub> and PFCs)
3. adipic acid (N<sub>2</sub>O)

The iron and steel industry is proposed for analysis as an example of energy intensive industry because it is typically the second largest source of CO<sub>2</sub> emissions in Annex I steel producing countries behind electricity, there is a relatively small number of manufacturers in the industry, and the processes and product mix are somewhat more homogenous than that of other energy intensive processes. Iron and steel companies in different countries are at different stages of development and are evolving in different ways but many are in the process of adopting new technology and undergoing structural change towards smaller, more flexible plants. According to industry representatives, further significant improvements will require new processes and new products (e.g. lighter weight steel products) which are unlikely to be commercially feasible for some time. New technologies are being developed to improve steel making processes and products, but more research and development is needed to hasten the development and commercialization of new technology.

Available data suggest that aluminium production is a major source of two PFCs (CF<sub>4</sub> and C<sub>2</sub>F<sub>6</sub>) and of CO<sub>2</sub>, if indirect emissions from electricity are considered. Also in many OECD countries, adipic acid production accounts for an important source of N<sub>2</sub>O which can be largely eliminated with available technologies. (Adipic acid is a raw material used mainly for the manufacture of nylon.) Industry wide agreements to control these extremely potent non-CO<sub>2</sub> gases might lead to radical reductions of these emissions.

**Policy Objective:**

To consider the possibilities for the use of international voluntary agreements to achieve GHG reductions. Drawing on Annex I country experience with VA, the study will review different forms of VA (including incentives structures), assess a limited number of specific formulations of international VA (see description of measures below) and evaluate the feasibility of the use of VA for "common action." Key issues for the study include: the structure and form of international VA, the relevance of VA to all Annex I countries

(including EIT countries) considering different national contexts and starting points, and the trade-off between the cost and effectiveness of alternative types of VA.

**Description of measures to be analysed:** As examples of voluntary agreements with industries producing goods that are traded:

- Voluntary agreements between the industry and governments of all Annex I countries with relevant industrial activities to **reduce greenhouse gas emissions per unit output** within a specified time period and compared to an agreed baseline or base year. In the case of iron and steel, the measure would be slightly different: agreement to achieve a specified level of energy use (or a % reduction of energy use) per unit of steel produced (depending on process type) within a specified time period. The level of greenhouse gas reduction could be negotiated separately by individual Annex I governments and industry participants, or as a common target among a sub-set of Annex I countries.
- Voluntary agreements between industry and governments of all Annex I countries with the industry activity which is being studied, to identify and consider implementation greenhouse gas reduction (technical) measures, and to report the results in national communications.<sup>6</sup>
- Voluntary agreement between the iron and steel industry and Annex I governments to jointly fund R&D on processes and products that reduce greenhouse gas emissions (e.g. 50% industry, 50% government; or 75% industry, 25% government).

#### **Approach/Methodology:**

To assess any of the above measures, a baseline scenario of greenhouse gas emissions in the industries which takes into account current standards and regulations is essential to gauge the potential for VA to have an impact on these trends. To the extent information is available, outlooks will be developed to show what could be expected to happen in the absence of VA (assuming normal replacement of old equipment, processes and operating procedures). The analysis will assess the level of greenhouse gas reduction from this baseline that could be achievable (and politically feasible) based on expected improvements from existing VAs in Annex I countries and using information from countries that have been particularly successful in improving their energy efficiency through VAs or other mechanisms (e.g. cases could be developed for Finland, Germany, Japan, the Netherlands, and Norway, the United States and/or Canada; the selection of case study countries will depend on the availability of information and the willingness of governments to participate). Information on best available technology will be used to assess the maximum possible energy efficiency improvement and reduction in emissions.

The study will consider the effectiveness of VAs, with different levels and types of possible incentives to participate, as well as the variety of approaches to VA. The cost of negotiating VAs and the cost implications of incentives that may be required will be assessed, along with the possible impacts of the agreements on carbon leakage (including the location of raw materials processing facilities), competitiveness of national operations on a global. The analysis will assume that the VAs are designed so they take into account all GHG intensive stages of production, (e.g. for iron and steel, coke making would be considered even if this occurs outside of the Annex I region).

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Mitigation measures could include R&D measures as well as shorter term mitigation measures.

## **DEMAND-SIDE EFFICIENCY**

### **Product standards *Tranche 1***

#### **Context:**

Energy efficiency standards and labelling schemes for appliances and equipment are playing an increasingly important role in Annex I countries' strategies to meet their energy and environmental policy goals. These instruments can be effective in encouraging the development, marketing and purchase of more efficient products, particularly for consumer goods where the energy costs of using the products are difficult for small consumers to calculate and so are not usually taken into account in purchase decisions, and where it is difficult for consumers to influence the energy requirements of products. It is likely that standards and labels could be more effective with international co-operation. One advantage of common action would be more consistent and stronger signals to manufacturers. In addition, larger markets for efficient products could reduce production costs.

Many countries have developed product standards, particularly for refrigerators/freezers, but the standards have been based on different test protocols and set at different levels, and there are varying levels of information available on the potential effects of standards for different products. Information on office equipment is available for many countries, but the information needed to assess energy efficiency standards on electric motors, home heating appliances, and air conditioning is less readily available. International test protocols, the prescribed procedures for assessing the performance of products, are an important prerequisite for common action on product standards and labels. The analysis will assess the feasibility of developing international test protocols.

Energy labels could further enhance product energy efficiency through advertising efficient products. Product labels are among the second "tranche" of measures which will be assessed after the analysis on product standards is completed. The assessment of labels will draw on and add to information developed for the product standards study.

#### **Policy objectives:**

To increase the energy efficiency, and hence lower the associated greenhouse gases, of refrigerators/freezers, office equipment, air conditioners, home heating appliances, and electric motors, and to facilitate trade in these products.

#### **Description of measures to be analysed:**

Develop international test protocols and minimum energy efficiency performance codes for energy efficiency of a range of traded products:

- a) refrigerators and freezers,
- b) office equipment (computers, printers, monitors, photocopiers, fax machines),
- c) other products such as air conditioners, home heating appliances (space heaters and water heaters), and electric motors will be included in the study to the extent that available information permits.

Once the test protocols and minimum energy efficiency standards have been developed, several alternative measures could be considered:



- (i) agree to report on average product efficiency levels in national communications (e.g. average kWh/day for the whole product stock or new products only);
- (ii) agree to adopt test protocols; or
- (iii) agree to adopt efficiency standards.

**Approach and methodology:**

The effects of implementing minimum energy efficiency standards will be assessed for regional sub-groups of Annex I countries such as: Western Europe; Central Europe; Eastern Europe; Japan; the United States of America and Canada; New Zealand and Australia. Spreadsheet models will be used to analyse the cost-effectiveness and greenhouse gas reduction potential of product standards in each region on refrigerators/freezers and office equipment, for several different levels of standard e.g. current level, most widespread current level, and most rigorous current level. These regional studies will provide the bulk of the analytical input. To the extent possible the levels of energy efficiency standards assessed will be comparable in every region, and comparable assumptions will be used (e.g. discount rates). The standards will be assumed to be mandatory minimum energy performance codes implemented on a regional basis for the analysis, but the different tools individual nations could apply to meet the standards will be discussed, including the possibility of using voluntary approaches. Existing work will be used where possible to avoid duplication of effort.

Available information on the costs and effects of standards on other products such as electric motors, home heating appliances, and air conditioners will be reviewed. An assessment of the costs, greenhouse gas reduction potential of Annex I wide common action on standards will be carried out based on information from the regional analysis. The macro-economic impacts of product standards will be assessed to the extent possible from available information.

Particular emphasis will be given to: possible impacts of Annex I country product standards on other countries, e.g. on trade and competitiveness; the possible use of energy efficiency indicators on a regional or international level to judge the effects of standards; and the issues that could arise in harmonizing test protocols.

## **SUSTAINABLE AGRICULTURE/FORESTRY**

### **Development of Options for Best Practices for Greenhouse Gas Reduction**

#### *Tranche 1 and 2*

**Context:** The development of best practice guidelines is a pragmatic way to expedite progress in GHG reduction through sustainable agriculture and forestry for four main reasons:

1. These two sectors encompass a considerable range of potential measures due to the variety of conditions at national level.
2. Much action is innovative and there is a need to facilitate the dissemination of good ideas.
3. The opportunity exists to access and build on policy developments and institutions which are designed to meet non-climate objectives (e.g. EU-CAP reform and GATT developments; ITTO for forestry).
4. Much knowledge already exists and is documented but has not been succinctly analysed and synthesized.

This study is expected to be the first part of a two part study which would lead to recommendations for common action. Tranche I study is intended to explore a wide range of cost-effective response options in these sectors and to identify measures or characteristics of best management practice in each of these sectors which could eventually be advocated in the form of "guidelines." The study may also identify priority areas for further research, which in itself could be the subject of Annex I country "common action." In many cases, existing instruments/institutions exist which could be modified to reflect GHG priorities; the study may also provide recommendations on how to do this. In addition, the study will consider how the FCCC process could be used to initiate new actions in these sectors which would lower GHG emissions.

#### **Policy objectives:**

To reduce GHG emissions and concentrations through packages of measures in agriculture and forestry sectors which link with other economic and environmental policy.

#### **Description of measures to be analysed:**

1. Improved policy co-ordination to encourage the development and diffusion of state of art technology and management practices, including financial incentives, voluntary agreements and standards, education and information policy instruments, for a range of measures, including:

- reduction of enteric fermentation emissions (e.g. through improved feeding practices);
- methane capture from agricultural wastes;
- reduction and changes in the application of nitrogenous fertilisers and animal wastes to farmland;
- reduction of fossil-fuel use in agricultural production;

- enhancement of C sequestration and retention in agricultural soils;
  - other soil conservation practices.
2. Improved co-ordination and assessment of ways to achieve most effective management measures for:
- preserving biomass in forests with forest management (conservation, development and utilisation policies), including conservation existing C pools;
  - encouraging afforestation for C storage;
  - management for substitution by increasing the transfer of forest biomass C into products such as biofuels and long-lived wood products that can be used instead of fossil-fuel based products.

The study will also consider the balance and trade-off among different measures as well as the balance between climate policy initiatives and other policy initiatives (e.g. local policy aimed at preserving biodiversity or improving recreational use of forest areas).

#### **Approach and methodology:**

To develop options it is necessary to identify measures which are suitable candidates for early guidelines as well as the steps required to develop a systematic programme on sustainable agriculture and forestry. Close scrutiny of these sectors will establish if there are other appropriate mechanisms, apart from the guidelines approach, for 'common' action. In addition the study will consider where institutional blockages to action may occur and how these might be overcome. Tasks are divided into core tasks (cross-cutting) and specific sectoral tasks.

#### Core tasks

1. Establish broad strategic policy context for agriculture and forestry sectors for 2005, 2010 and 2020 time frames from a non-climate policy perspective in main regional groups, individual countries where appropriate and if relevant, broad ecosystems. Identify likely trends, including impacts of climate change and removal of agricultural subsidies (and their GHG effects).
2. Establish estimated scope and cost-effectiveness of GHG reductions.
3. Review institutional framework for common action at international levels outside the FCCC framework.
4. Assess political feasibility and the scope for linkage.<sup>7</sup>

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For agriculture a critical issue is the areas required for food production in the OECD in relation to the broad thrusts of policy generated by GATT and CAP reform, with subsidy removal and in the longer term, an enlarged EU. For forestry many of the critical features are well-known but have not been addressed in an integrated way in an OECD context. There are already broad linkages between forestry policy and fossil fuel use: for example, concerns about acid rain on forest health in northern OECD countries have driven the LRTAP process. Also the study can establish whether it may be possible to achieve climate change objectives through the use of

## **OTHER**

Financing energy efficiency in countries with economies in transition *Tranche 1*

### **Context:**

There is significant potential for reducing greenhouse gas emissions by improving energy efficiency in Annex I countries, particularly in countries with economies in transition (EIT). Substantial improvements in energy end-use, in particular, are possible in EITs through investment in more efficient products as the demand for buildings, appliances, and equipment increases. The measures to realise this potential, such as including energy efficiency features in building projects, individual tenant metering for electricity, skill development, and improving energy infrastructure, often require private sector financing or government funding. The difficulty of raising tax revenues and budget deficit reduction goals can make it impossible to rely on large amounts of government funding for energy efficiency measures. Funding from the private sector or multi-lateral development banks (MDBs) can be difficult to access, particularly in many EIT countries. The reasons for this difficulty are often associated with the need for economic reforms to provide investors with greater certainty. Reforms have begun in many EIT countries but are not yet complete. Another difficulty may be the lack of energy prices that reflect costs (which would enable energy investors to make sufficient return on investments). Sound institutions (such as legal systems and the associated regulatory frameworks, and financial institutions) and political stability are also important for investors.

### **Policy objectives:**

To improve energy efficiency and reduce greenhouse gas emissions through improved financing of energy efficiency investments.

### **Description of measures to be analysed:**

This study will not analyse any specific measure. The first step is to identify opportunities for energy efficiency improvement in EIT countries, and to assess the role of financing from MDBs and other institutions in realising these opportunities. Using this information, specific measures will be developed which could be assessed during tranche II of the Common Action project.

### **Approach and methodology:**

The study will focus on energy efficiency opportunities in EIT countries. In tranche I, this study will assess the potential for energy efficiency improvement in EIT countries, the reasons why this potential is not being realised, and the current and potential role of financing mechanisms in improving energy efficiency. Specific measures that could be used to improve energy efficiency will be proposed for further analysis in tranche II.

The study will include a region-wide assessment of overall energy efficiency potential in EIT countries from the available literature. In addition, a detailed country-specific assessment will be made of at least 4 EIT countries' energy efficiency potential. The detailed country assessments will include a sectoral and project break-down of the cost-effective energy efficiency potential (from the perspective of potential investors). Barriers to the realisation of this potential will be identified, and specific financing options will be suggested for a representative sample of projects.

Emphasis will be given in the study to the role of MDBs and the private sector (including venture capital) as possible “vehicles for action” to achieve the measures. The extent to which MDBs and other institutions include energy efficiency in their financing portfolios will be explored, and the feasibility of changing the procedures and priorities of MDB and private sector investment (including venture capital) will be assessed, working with the World Bank, the European Bank for Reconstruction and Development, and country experts. The possibility of using other existing mechanisms as vehicles for action will be investigated e.g. strengthening the energy efficiency aspects of the European Energy Charter, making energy efficiency a focus for the Project Preparation Committee of the Environment for Europe project, or establishing partnerships between countries. The study will pay particular attention to the possibility of using “joint implementation” as a mechanism for financing energy efficiency projects in EIT countries. The study will include discussion of key institutional steps that need to be taken in EIT countries as a basis for encouraging further investment in their countries.

Possible features of a protocol  
or another legal instrument.

Submission of Estonian delegation to the 3rd session of the AGBM

Following discussions held during the AGBM 2 and Secretariat's letter requesting for Party's views on possible features of a protocol or another legal instrument, Estonian delegation would like to communicate its preliminary ideas about the topic.

In order to facilitate further negotiations on the implementation of the Berlin Mandate and the formulation of delegation's positions we would prefer to have a draft structure of a legal instrument agreed upon at an earliest possible stage of negotiations. Negotiations on the outline of a legal instrument should in our view take place in parallel with, or to be even shortly ahead of negotiations on policies, measures and quantified emission limitation and reduction objectives as well as other items on the agenda of the AGBM. That could assist Parties in formulating their positions and help to make following discussions more fruitful and target oriented especially when considering the tight time frame prescribed by the Berlin Mandate.

A new legal instrument derives from the UN Framework Convention on Climate Change and the Berlin Mandate. It would therefore be wise, helpful and cost-effective if the new legal instrument had structural similarities and relationship with the Convention and its institutional arrangements. Estonian delegation is in favour of having different annexes to the new legal instrument, specifying differentiated policies and measures according to their priority or other features.

In this regard the EU proposal on the outline of possible protocol structure could serve as a basis for further negotiations.

Taking into account the principle of common but differentiated responsibility and different economic and social circumstances among the Annex I Parties, Estonian delegation would welcome the elaboration and inclusion of additional annexes, which could provide the differentiation among the Annex I Parties considering their different economic and national circumstances, into the new legal instrument. The main criteria for differentiation could in our view be the GDP per capita. The share of respective Party to the global warming should also not be forgotten in the list of such criteria.

Which gases should be covered by the new legal instrument? Estonia prefers at this stage the “basket approach”, i. e. greenhouse gases should be dealt with together, taking also into account their removals by sinks.

With this we would conclude our remarks on possible features of a protocol or another legal instrument at this stage.

Tallinn, 15 January 1996

**Возможные элементы Протокола  
к рамочной Конвенции ООН об изменении климата  
группы стран с переходной экономикой**

Выражая озабоченность продолжением роста концентрации в атмосфере парниковых газов, не регулируемых Монреальским протоколом;

Напоминая о решении Конференции Сторон 1/CP.1 о адекватности обязательств по статье 4.2 (a) и (b);

Подчеркивая, что страны Приложения 1, находящиеся в состоянии перехода к рыночной экономике, являются единственной группой стран, уже в настоящее время реально и значительно сократившей выбросы в атмосферу парниковых газов, не регулируемых Монреальским протоколом;

Отмечая, что в последующем, за вызванным экономическими причинами процессом снижения выбросов парниковых газов в этих странах объективно последует период наращивания выбросов в связи с экономическим ростом;

Ссылаясь на принцип общей, но дифференцированной ответственности;

Ссылаясь далее на Статью 4.6 Конвенции о предоставлении определенной степени гибкости Сторонам, включенным в Приложение 1 и осуществляющим процесс перехода к рыночной экономике;

А также с целью укрепить способность стран Приложения 1 с переходной экономикой заниматься проблемами, связанными с изменением климата;

*Страны с переходной экономикой, Российская Федерация и другие поименно, включенные в Приложение 1, при поддержке других Сторон Конвенции, договорились о нижеследующем:*

1. До стабилизации экономики (в соответствии с количественными критериями, объективно отражающими социально-экономические условия в стране) и последующего экономического роста осуществлять необходимые оценки и разработку практических политики и мер в областях деятельности, позволяющих ограничить и сокращать выбросы в атмосферу парниковых газов, не регулируемых Монреальским протоколом, по следующим основным направлениям:

1.1. Научные:

- фундаментальные и прикладные исследования по проблемам изменения климата;
- разработка и уточнение оценок, сценариев и прогноза изменений климата и их последствий;



- создание системы мониторинга содержания парниковых газов в атмосфере;

#### 1.2. Технологические:

- энерго – и ресурсосбережение в области производства электроэнергии, ее распределения и потребления, на транспорте, в промышленности, в жилищно – коммунальном хозяйстве и других отраслях хозяйственной деятельности;
- альтернативные источники энергии;
- рациональное землепользование и сельское хозяйство;
- сокращение выбросов и утечки метана;
- ведение целенаправленных мероприятий по защите и повышению качества поглотителей и накопителей парниковых газов;

#### 1.3. Экономические:

- использование рыночных механизмов, в том числе в таких областях, как ценообразование, стандарты, налоговая политика;
- введение и использование регулирующих функций таких мер, как штрафы за превышение предельно допустимых выбросов в атмосферу парниковых газов, не регулируемых Монреальским протоколом;

#### 1.4. Сотрудничество со Сторонами Приложения 2:

- освоение технологий;
- привлечение финансовых и материальных ресурсов;
- развитие процесса совместного осуществления обязательств Сторонами Конвенции.

2. По мере достижения стабилизации и устойчивого экономического роста странами Приложения 1, находившимися в состоянии перехода к рыночной экономике, рассматривается вопрос о присоединении конкретной страны или группы стран к процессу принятия и реализации политики и мер развитых стран Приложения 1.

3. Предоставлять Конференции Сторон регулярные сообщения о достигаемых результатах и планируемых дальнейших политике и мерах по настоящему Протоколу.

Possible elements of protocol to the Framework Convention on Climate Change  
proposed by a group of Parties with economies in transition

Being concerned by the continuous growth of atmospheric concentrations of greenhouse gases not controlled by the Montreal Protocol;

Recalling decision 1/CP.1 of the Conference of the Parties on inadequacies of commitments under Articles 4 (a) and (b);

Stressing that the Parties included in Annex I undergoing the process of transition to a market economy are the only group of countries which at present actually and significantly reduced emissions of greenhouse gases not controlled by the Montreal Protocol;

Noting that in future the period of reduction in emissions of greenhouse gases which is due to economic circumstances in these countries will be objectively followed by a period of increase in emissions due to economic growth;

Recalling the principle of common but differentiated responsibilities;

Recalling further Article 4.6 of the Convention allowing a certain degree of flexibility to the Parties included in Annex I undergoing the process of transition to a market economy, and aiming to enhance the capabilities of Annex I Parties with economies in transition to resolve problems related to climate change;

*Parties with economies in transition included in Annex I, the Russian Federation and others, namely, ----- supported by other Parties to the Convention have agreed as follows:*

1. Prior to stabilization of the economy (according to quantitative criteria objectively reflecting social and economic conditions in a country) and future economic growth, to undertake the necessary evaluation and to develop practical policies and measures in those fields of activities which would allow to limit and reduce atmospheric emissions of greenhouse gases not controlled by the Montreal Protocol, along the following main lines:

1.1 Scientific

- Fundamental and applied research on climate change problems;
- Development and refinement of estimates, scenarios and projections of climate change and its effects;
- Creation of the system of monitoring of greenhouse gas concentrations in the atmosphere;

## 1.2 Technological

- Energy and resource saving measures in the field of electricity generation, its distribution and consumption, in transport, industry, residential, commercial and other sectors;
- Alternative energy sources;
- Rational land use and agriculture;
- Reduction of emissions and leakages of methane;
- Implementation of specific measures to raise quality of sinks and reservoirs of green house gases.

## 1.3 Economic

- Implementation of market mechanisms in such fields as pricing, standards, taxation, policy;
- Introduction and implementation of regulatory functions such as penalties for exceeding maximum admissible atmospheric emissions of greenhouse gases not controlled by the Montreal Protocol.

## 1.4 Cooperation with Parties included in Annex II

- Introduction of technologies;
- Attracting financial and material resources;
- Developing activities implemented jointly by the Parties to the Convention.

2. To review the issue of involvement of a specific Party or a group of Parties into the process of implementation of policies and measures envisaged for developed countries listed in Annex I, while Annex I Parties undergoing the process of transition to a market economy work towards economic stabilization and sustainable economic growth.

3. To submit to the Conference of the Parties on a regular basis communications on results achieved and future planned policies and measures to be implemented under the present Protocol.

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