1. Scope and Coverage

The Subgroup agreed that the Convention should apply to all anthropogenic emissions of gases that result in a significant radiative forcing, an approach consistent with the broadly framed definition of “greenhouse gases” in draft Article 1. The group further agreed that this implied a need for recognition that the Convention must provide for monitoring, periodic assessment by scientific bodies, and revision as proposed in draft Article 3 and further elaborated in Annex 1.

2. Reductions in Greenhouse Gas Emissions

(a) Although acknowledging its conceptual advantage if we had sufficient information on the sources and sinks of all greenhouse gases, the Subgroup recommended against the use of a weighted index of greenhouse gases or “market basket” as an approach to agreement on required reductions. This was primarily because of concerns that differences in the scientific understanding of the sources and radiative forcing resulting from some gases (e.g., methane) would impede agreement on reducing emissions from those gases that are understood well enough to be controlled, particularly carbon dioxide. The Subgroup recognized, however, that some categories of emissions of methane or other greenhouse gases (e.g., releases from coal mines, natural gas pipelines, landfills, etc.) might be ascertainable and controllable, hence perhaps permitting some use of a weighted index approach between CO₂ and those limited categories of ascertainable and controllable emissions of other gases. Care should be taken to avoid through regulatory anomaly causing substitutions of one greenhouse gas for another where the total radiative forcing would increase.
(b) The Subgroup proposed that the Convention establish a goal of limiting radiative forcing from mankind's activities to 2 watts per square meter by the middle of the next century, equivalent to an equilibrium increase in global average temperature of 0.5 to 2.5 degrees C according to current models. (The assessment process created by draft Article 5 should review the need for revisions in this goal and clarify the range of predicted warming.)

[Comment: It was proposed that the goal be stated in terms of watts per square meter because it is a direct measure of the impact of greenhouse gas emissions, as opposed to measures of impact.]

(c) The Subgroup proposed the adoption of a protocol to limit the atmospheric concentration of carbon dioxide to 420 parts per million (ppm) in order to meet the recommended goal. (This corresponds to a global carbon budget of 250 to 300 gigatons.) The protocol would establish a two stage process for reductions to meet this goal. In the first stage

(i) industrialized countries would be required to reduce their emission of CO$_2$ from fossil fuel combustion 20 percent relative to 1988 by the year 2000 in accordance with compliance schedules submitted by each industrialized country to [the secretariat];

(ii) compliance with each industrialized country's schedule would be determined [by the secretariat] every three years beginning in [1991];

(iii) industrialized countries unable to comply with their schedule would pay a penalty to the fund created by Article [___] for assisting developing countries, the amount of such penalty to be in proportion to their violation in accordance with a schedule determined [by the secretariat];

(iv) developing countries would be required to reduce their carbon emissions per unit of gross national product (from commercial energy) by an average of 2.5 percent per year between the date of the agreement and the year 2000;

(v) developing countries that meet the requirements of the preceding paragraphs [as determined by the secretariat] would be eligible for additional aid from the fund established in accordance with Article [___];
(vi) compliance with Protocol requirements shall be calculated on the basis of consumption of fossil fuels, including fuels used to generate electricity for export and carbon dioxide emissions associated with cement production but excluding petrochemicals used for production of plastics and other materials.

The second stage requirements for global CO$_2$ reductions after the year 2000 will be determined by a process of structured negotiations leading to a Conference of the Parties to conclude an additional protocol in 1995. These negotiations will allocate the remaining carbon budget among nations, taking into account differences in population, income, and historic emission rates.

3. Carbon Emissions from Forestry and Agricultural Practices

(a) The Convention should establish a goal of reducing net biotic emissions of carbon dioxide to zero by the year 2000;

(b) Developing countries that achieve a net sink for carbon through afforestation shall be entitled to a credit toward establishing their eligibility for additional funding as provided in paragraph 2(c)(iv).

4. Clarification

Each signatory will be required to submit annual reports on its energy use comparable in detail to national income accounts to the [__________], which shall be responsible for conducting audits to verify their accuracy. Where necessary, [__________] shall assist developing countries to establish the necessary reporting and monitoring systems. The [__________] will issue an annual assessment summarizing the information contained in country reports and the implications for achieving the goals of the Convention and Protocols.

[The United Nations Forestry and Agricultural Organization will provide similar services for reports on biotic emissions.]

5. Emission Trading

The Subgroup proposed that trading of permitted carbon dioxide emissions be permitted among industrialized countries to facilitate compliance with the required 20 percent reduction by
2000, recognizing substantial differences in the current efficiency levels, resources, and fuel mix among industrialized nations. In this period trading would be permitted as the basis for compliance with country compliance schedules. The trading scheme would be administered [within the framework of the General Agreement on Tariffs and Trade]. The appropriateness of a worldwide trading scheme to meet requirements after the year 2000 would be determined by the Conference of the Parties proposed for 1995.

6. Enforcement

The [secretariat] shall establish sanctions against trade with non-signatories and signatories that fail to comply with Protocol requirements. Such penalties shall be imposed according to a graduated schedule that begins with restraints on trade in energy commodities and extends to all products made using fossil fuels.
REPORT OF SUBGROUP C:

ECONOMIC INCENTIVES TO ACHIEVE CONVENTION GOALS

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A faster emission reduction schedule is possible at a given economic cost through the use of such incentive measures as emissions trading both within national boundaries and across international borders. An emission protocol to be developed from this Convention should give all possible consideration to a range of economic incentive tools. Among those could be concepts applied in the convention air pollution control field such as bubbles, banking, and offsetting as well as such devices as assurance bonds, deposit and refund revolving funds, and discharge fees.

Trading within countries and across borders would allow greater flexibility and reduced cost in achieving rapid emission reductions. Ultimately such international emission trading could become a significant means of providing the capital to developing countries needed to finance the acquisition of environmentally benign technologies. This could be facilitated, if in establishing national baselines for an emission protocol, developing countries are given a bonus to their baseline which could readily be traded to industrialized countries for a negotiated price.

Although there are large protocol problems in fashioning a workable emissions trading plan, e.g., validating the transactions, determining whether trades could occur between sources and sinks or only among sources, determining the time frame to be used, determining whether trading can be permitted between different greenhouse gases on a weighted equivalent basis, it is quite desirable that analysis begin immediately on these issues as trading may have the potential of realizing significant savings in effectuating greenhouse emissions control goals. Such a reduction in the control costs per unit volume could make feasible a more rapid emission reduction.

Efficient use of market incentives also involves allocating external costs such as air pollution and generation of greenhouse gases to those causing such pollution. Public policies such as taxes or emission fees roughly equivalent to the societal cost of such pollution can reduce greenhouse emissions and create a level playing field for more environmentally benign technologies.
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