



G8 Youth Summit 2009

Technical Experts in Climate Change Paper



SUMMARY OF COUNTRIES' POSITIONS

US: stop deforestation, forests as carbon sinks?, technology transfer

Russia: more ambitious than Kyoto, developed and developing countries, deforestation

Germany: 450 ppm, international CO2 trade, preservation of biodiversity

Italy: global promotion of renewables, energy efficiency, international treaty ratified by all countries

UK: legally binding post-Kyoto agreement with fixed quotas, cap CO2 emissions, extend global cap and trade system or global tax on CO2 emissions, protection of biodiversity, quota for renewable energies

France: share the burden between developed and developing countries, CO2 quotas, binding protocol, research on renewables and energy efficiency, sustainability ensured, preservation of biodiversity

Canada: CO2 reduction as fast as possible, reduction targets for corporations, focus on methane emissions, nitrous oxide emissions reduction, focus on renewables

THREE GOALS

International agreement, burden sharing between developed and developing countries, defined CO2 emissions cap and global temperature rise, deforestation and biodiversity

INTRODUCTION

Since the beginning of Industrialization in the mid-19th century the global CO2 concentration in the atmosphere rose from 280 ppm to 380 ppm today. Carbon dioxide, along with methane gas, nitrous oxide, and sulphur hexafluoride, is the main driver behind the warming of the atmosphere, so-called global warming. This warming unleashed several mechanisms, among those are the rise of global mean temperature and a shift in precipitation patterns

In the 1990s nations have united in the battle against climate change and instated the Kyoto Protocol to reduce global greenhouse gas emissions. The Kyoto Protocol will expire in 2012 and in December 2009 the world meets in Copenhagen to discuss a post-Kyoto protocol. We, the Technical Experts for Climate Change, have therefore identified three main aims and elaborated a proposal on how to mitigate climate change and, hopefully, its detrimental effects on the environment and the human race.



FIRST BEST SOLUTION

CO2 emissions and trade:

We fully support the goal of limiting the rise in global mean temperature to 2 Kelvin above the pre-Industrial level. Scientists have identified 450 ppm to be maximum atmospheric CO2 concentration that still allows for reaching this target.

A suitable mix of energy sources, energy efficiency, more efficient transport technology as well as future power generation technology will contribute to our reduction goals.

However, the most effective measure to reduce CO2 emissions, in our view, is a global cap-and-trade system. The cap needs to be defined by scientists and may at no point in time exceed 450 ppm. The allocation of CO2 emission rights per country needs to be based on population and/or surface area. The most effective instrument to distribute CO2 emissions all over the world and to realize CO2 emissions savings at as little cost as possible is a common carbon dioxide market. Emissions rights will then be traded by the ton of carbon dioxide.

On the road to a world-spanning system we encourage the installation of regional trading schemes framed after the European Emissions Trading Scheme (EETS) under national or regional supervision. In the long run, we propose a gradual merging of these schemes into a global trading system and the setup of a global supervisory authority. Tradable CO2 emissions include those from power plants, industry, the transport sector, and forestry, both negative and positive, with satellite monitoring.

The emission rights, or CO2 certificates, will be auctioned by an independent international organization. The certificates can then be freely traded between CO2-emitting companies. At the end of each trading period the companies will have to be in possession of as many certificates as they emitted CO2 in that period. Should a company fail to do so, heavy fines will be charged. Speculation on certificates is prevented by limiting the right to trade to those players on the market who emit CO2 themselves, living beings not counted.

The revenue earned through certificate auctioning will be distributed to all countries based on their population, land area or a combination thereof, ensuring a just distribution of the CO2 emissions savings burden among all nations, developed and developing.

Burden sharing and reform of CDM, transfer of funds:

Seeing as Clean Development Mechanism (CDM) projects have shown at least some level of success, they should be continued but their value in reducing GHGs should be clear and well regulated. CDM projects will only be open to countries that become part of the CO2 trading system.

In the case of an auction, some of the funds could be reserved for a fund similar to the Adaptation Fund for countries most prone to climate change. Other funds could be allocated to nations based on population and/or land area. Distributing money to developing nations to reduce future carbon dioxide emissions may be necessary in cases where the developing nation cannot do so themselves. Policymakers will have to decide on the distribution method, which may involve an independent organization.

Deforestation and biodiversity:



As forests are greatly important climate regulators, we are concerned about deforestation and the related biodiversity loss. We recommend stricter regulation of forestry practices in national policies and promotion of sustainable forestry. We also recommend the preservation of pristine forests. Where logging is practised, we urge that land is to remain fertile by putting nutrients back into the soil. Promoting crop rotation can be an effective method in attaining this goal. Widespread education in long-term agricultural practices will be necessary as well.

We do not encourage the use of geo-engineering projects as it may threaten to the integrity of all life on earth but we do not discourage more thorough research on the topic.

ALTERNATIVE SOLUTIONS

In a quota system, an international organization would set a worldwide cap, then allocate emissions to each country. The world cap must be set at a level that meets the prior stated goal of keeping temperature rise below 2K. The allocations should be based on population, GDP and realistic reduction targets for each country. Once permits have been allocated, governments are free to create their own mechanism to reach required reductions and reallocate funds as they see fit. Non-compliance would result in heavy fines and/or trade sanctions. Under this program the adaption fund must be modified. It is suggested that a larger portion of CDM projects go to adaptation than the current 2%.

An alternative possibility for determining a long-term carbon price would be the introduction of a global carbon tax. A universally applicable and scientifically determined charge per emission of 1t CO₂ has the advantage of incentivizing companies to reduce emissions while at the same time allowing economic actors to make reasonable cost estimates for their business plans. A tax is a transparent and just measure in the sense that it is in line with the “polluter pays” principle. Additionally, it would immediately make available funds that could be used for research, funding and possibly adaptation measures. Cooperation amongst governments and perhaps an independent organization would be necessary for the success of this scheme. Periodic adjustments may have to be made to find the effective rate of tax.