

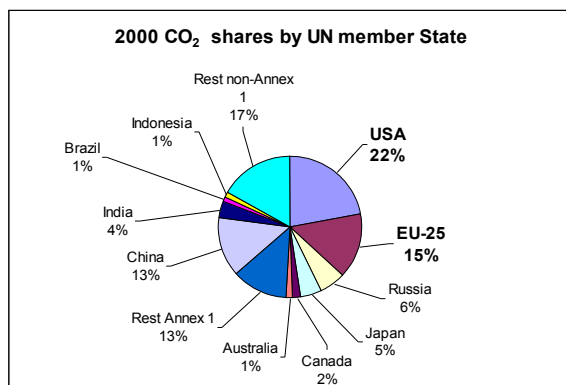
Atmospheric Responsibility and Climate Change

The global atmosphere is a vital, fragile, and precious resource. Without it there would be no life on earth. Its overall stability is a crucial matter, not only for the sake of human welfare, but also for the sake of all the many natural goods and services on which human welfare depends. With the build up of greenhouse gases in the atmosphere, and as the climate continues to warm, the question of allocating responsibility for limiting the emissions has become an increasingly urgent and contentious task within the climate negotiations. The situation is complicated by a number of factors, both scientific and political.

On the scientific side there are various types of responsibility. Greenhouse gases differ in both their atmospheric residency times and in their capacity to cause warming. Greenhouse gases also react with each other, with land areas, and with the oceans, sometimes re-inforcing overall warming and sometimes reducing it. Emissions from fossil fuels can be measured relatively easily, but emissions from changes in soil or from forests are much more fugitive, leading to disputes about appropriate assignation of responsibility for outcomes.

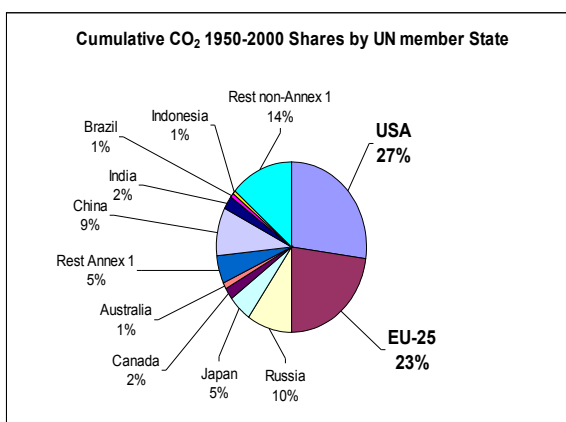
Politically, the difficulty is that greenhouse gases from human activity have been accumulating in the atmosphere for at least 150 years, and will take at least another 100 to stabilise under the best case scenario. For many of the governments involved in the negotiations, however, 5 year political cycles

mean that even 10 years into the future may seem like an unduly long-term consideration.



Sometimes, political considerations extend the other way around—governments may be slow to accept responsibility for past emissions, and prefer—especially if it is to their advantage—to concentrate purely on current emissions.

In fact, both the United Nations Framework Convention on Climate Change (UNFCCC) and its implementation framework, the Kyoto Protocol take account of atmospheric responsibility in explicit terms.



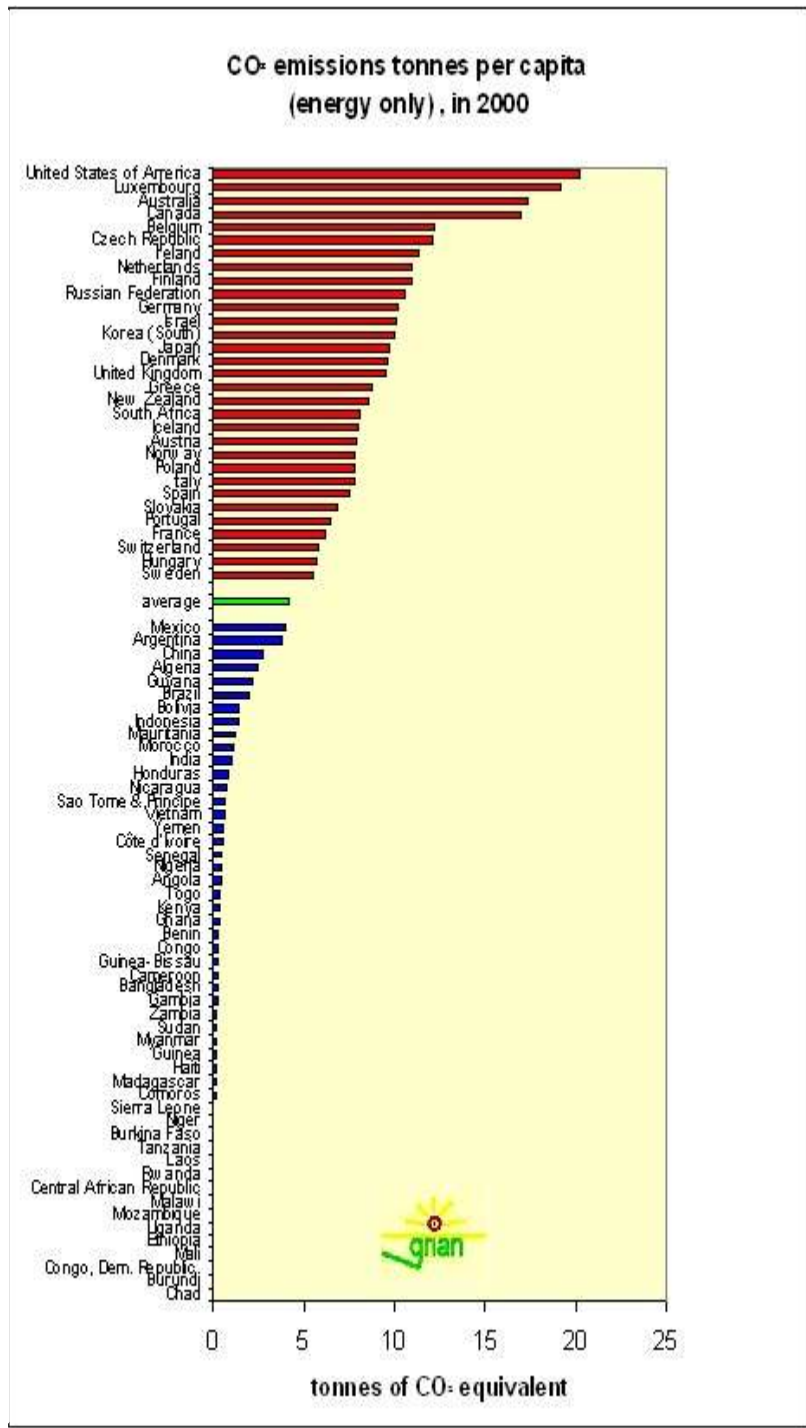
UNFCCC notes in its preamble that: “*the largest share of historical and current global emissions has originated in developed countries*” (see charts left). UNFCCC also adopts as a principle that: “***Parties should protect the climate system...on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change***” (UNFCCC, Art.3.1).

(Source: CAIT, available at www.wri.org)

Accordingly, both treaties currently take the approach of dividing Parties into 2 groups: UNFCCC Annex 1 (largely Northern developed countries belonging to the OECD) and non-Annex 1 (largely developing and less and least-developed countries in the South).

While this framework goes somewhat towards recognising the developed countries’ responsibility in Article 3.1, it is an approach not without difficulties, since it tends to create a bipolar “us and them” mindset, which is not conducive to overall co-operation and co-responsibility.

Another problem is that, ultimately, greenhouse gas emissions are caused at the sub-national level by firms, households and individuals. Since energy consumption is so closely related to economic wealth, and since so much of the world's energy is derived from fossil fuels, relative levels of wealth and expenditure are closely reflected in relative levels of carbon emissions.



When such effects are re-aggregated at the national level they reveal important differences in national emissions considered on a per capita basis. (See chart of selected countries, left). Current annual per capita emissions CO₂ in the richest countries in the world (e.g. USA = 19.9 t) are over 200 times greater than emissions in the poorest countries (e.g. Chad = < 0.1 t) and are more than 5 times larger than they should be if emissions were equal for everyone in the world (average = 3.9 t).

If the atmosphere is ever to be adequately protected and climatic stability is to be ensured, responsibility also extends to efforts to reduce emissions. Countries with relatively high levels of both current and historic emissions are also, non-coincidentally, those best able to finance and support less developed countries in mitigation and adaptation efforts.

Historically, wealth has been closely coupled to emissions. This linkage continues today. (See charts below.) If greenhouse gases are ever to be stabilised at a level which will prevent dangerous climate change, this link will have to be broken.

Time is running out. Recognizing responsibility for causing climate change is an important step toward taking current and future action to remediate it.

