

primarily to lower emission scenarios, the inclusion of the cooling effect of sulphate aerosols and improvement of the carbon cycle". Further, global warming for the full ranges of IPCC emission scenarios and climate sensitivities was estimated to be in the range 1.0-3.5 degrees C by the year 2100.

It is, however, to be noted that the radiative forcing due to the enhanced greenhouse gas concentrations in the year 2100, in the case of the mid-range emission scenario, increases to 8.5 W/m². This would be reduced by about 2.5 W/m² due to aerosols, to yield a net positive radiative forcing of about 6 W/m² (cf. SAR, Volume I, Technical Summary). On this basis, the ultimate global equilibrium temperature change would be 2.0-6.5 degrees C (since pre-industrial times) and 3.5 degrees C for the mid-range IPCC emission scenario for the central value of climate sensitivity. This implies that the realized temperature in 2100, as estimated in the SAR, is considerably less than the ultimate global equilibrium temperature that would correspond to the enhanced greenhouse gas concentrations at that time. In addition, the countering effect of aerosols, included in the analysis above, would partly be gone with stabilization of carbon dioxide concentrations.

- Emissions by Annex I countries were 75% of the total emissions in 1985 and the IPCC First Assessment Report (1990) projected that this number would decrease to 66% by the year 2000. The most recent analysis of carbon dioxide emissions, made by the World Energy Council (WEC), shows that by 1996, Annex I countries were responsible for about 64% of the total carbon dioxide emissions (of which the former Soviet Union and Eastern Europe contributed about 14%), and that Non-Annex I countries therefore emitted the balance, about 36%. This somewhat more rapid decrease of the relative amount of emissions by Annex I countries is primarily due to the substantial decrease of emissions from former Soviet Union and East European countries during the 1990s. Most of the increase of the emissions today stem from Non-Annex I countries. The IS92 IPCC emissions scenarios, however, project that Non-Annex I countries would not increase their emissions to 50% of the total emissions in less than 15-20 years from now, assuming Annex I emissions were stabilized.
- On the other hand, as I pointed out in my presentation to SBSTA in February this year, stabilization of carbon dioxide in the long term necessarily requires efforts by all countries. How this is to be achieved is a matter for political judgement that means considering risks and costs, "taking into account the common but differentiated responsibilities" of the Parties. This is not a task of the IPCC.
- Technical Paper No. 3 elaborates the issues about greenhouse gas emissions and climate stabilization. Analyses show that stabilization of carbon dioxide concentrations at any level above 500 ppmv is likely to result in changes equivalent to at least a doubling of pre-industrial carbon dioxide concentrations (i.e. 560 ppmv), because of the forcing by other greenhouse gases.
- The lower the level of stabilization aimed for, the more stringent the measures would have to be to achieve stabilization. In order to stabilize at or below 550 ppmv, for example, the adoption of a global strategy needs to be given serious consideration now: the implementation needs to begin in the course of the first decades of the 21st century and a more precise time table needs to be agreed by the Parties of the Convention.
- The IPCC has brought together a large number of technologies, policies and measures for mitigating climate change into a Technical Paper (No. 1), which deserves careful study. It is striking how much can be achieved at no or limited cost, because many