

Carbon Budget – Some Figures

Carbon Debt

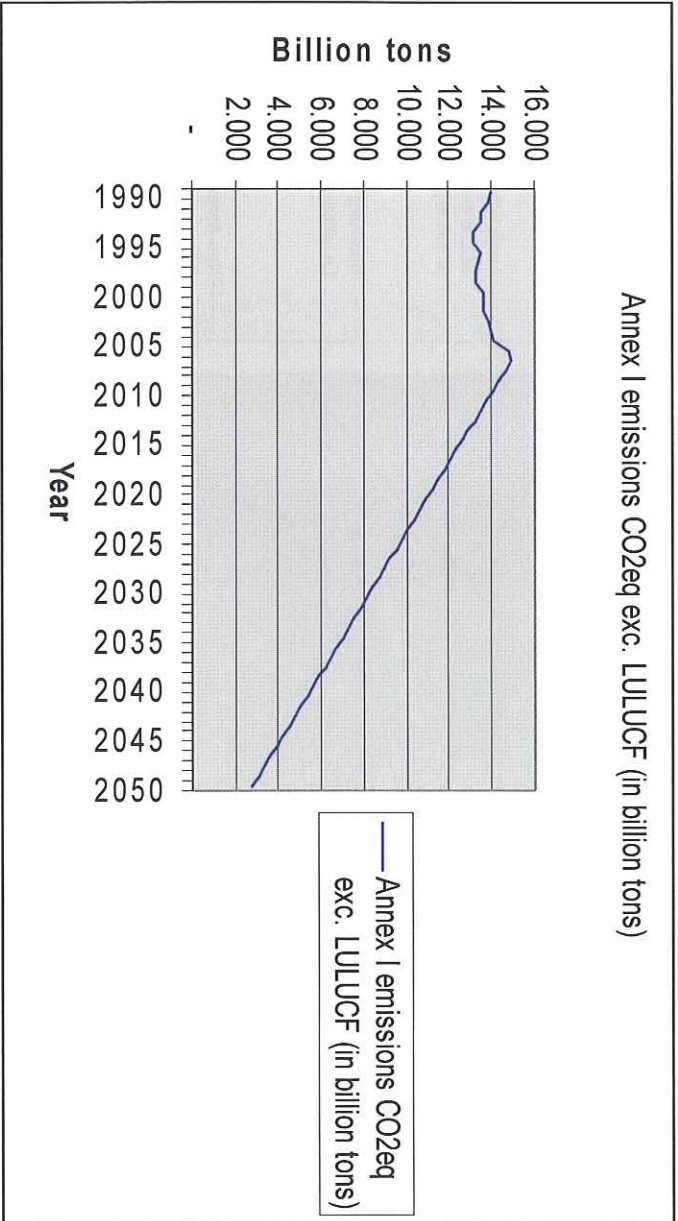
Country group	1850-2005 cumulative emissions billion tons CO ₂ eq	% Share in total cumulative emissions 1850-2009	% Average Share in total world population 1850-2005	% Proportional Share based on population 1850-2005	Over-Use/Under-Use of Share in total cumulative emissions (1850-2005)	% Over-Use/Under-Use – cumulative emissions over Proportional Share 1850-2005
Annex I	839.7	76	20	221.41	618.29	279.25% over proportional share
Non-Annex I	267.35	24	80	885.64	(Climate debt) -618.29	70% below proportional share
World	1107.05	100	100	1107.05	0	

Projected global annual emissions by 2050, assuming 50% global cut below 1990 by 2020	14.85 billion tons CO ₂ eq
Projected Annex I cumulative emissions from 2010-2050, assuming linear A1 cuts of 20% below 1990 by 2020 and 80% below 1990 by 2050	344.717 billion tons CO₂eq

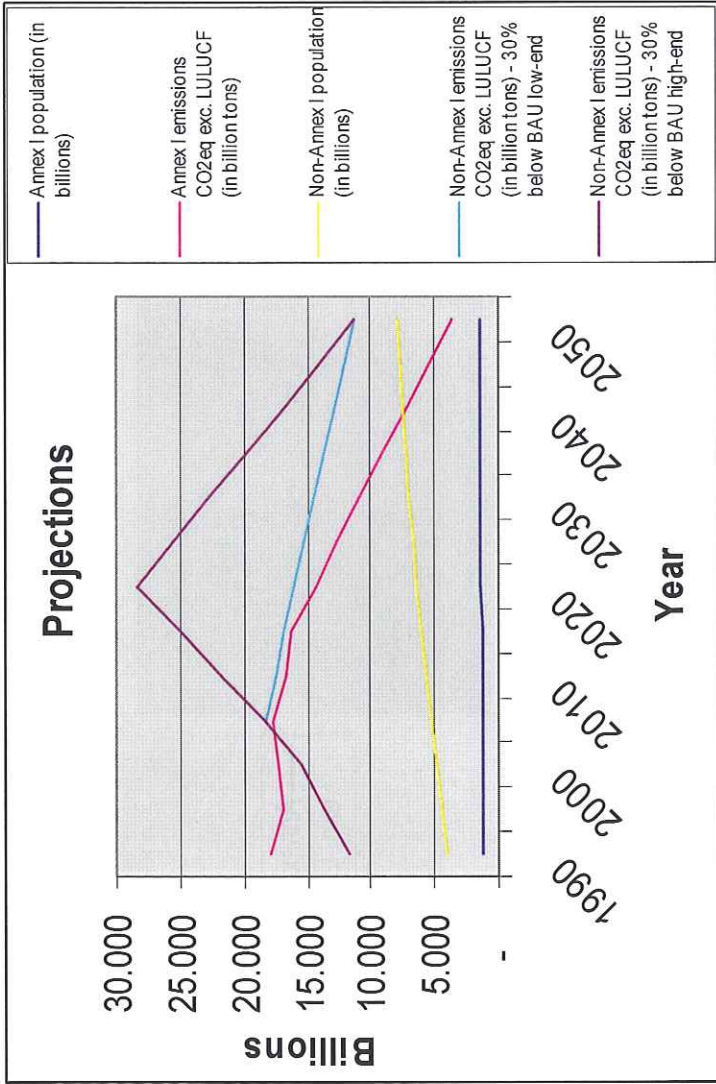
Item	Annex I annual emissions	Non-Annex I annual emissions	World annual emissions
1990 emissions w/o LULUCF (all gases CO₂eq)	18 billion tons - 60% of global total = 15.3 tons per capita emissions	11.70 billion tons - 40% of global total = 2.9 tons per capita emissions	29.70 billion tons = 5.61 tons per capita emissions
2050 emissions based on EU proposal - global cut of 50% below 1990 by 2050, with 80% Annex I cut below 1990 by 2050	<p>Annex I - 80% cut below 1990</p> <p>3.6 billion tons emissions by 2050 (80% below 1990) = 2.83 tons per capita emissions (81.50% below 1990 per capita)</p> <p>Population-Proportional share: 2.07 billion tons</p> <p>Over-use: 1.53 billion tons (74% above proportional share)</p>	<p>Non-Annex I - residual cut</p> <p>11.25 billion tons emissions by 2050 (4% below 1990) = 1.43 tons per capita emissions (51% below 1990 per capita)</p> <p>Population-Proportional share: 12.78 billion tons</p> <p>Under-use: 1.53 billion tons (12% below proportional share)</p>	<p>Annual global emissions by 2050</p> <p>14.85 billion tons emissions by 2050 = 1.62 tons per capita emission (71.12% below 1990 per capita) → of which:</p> <p>AI = 3.6 billion tons (24.24%)</p> <p>NAI = 11.25 billion tons (75.76%)</p>

Data sources for the calculations above:

1. Emissions data for 1990-2005: World Resources Institute, Climate Analysis Indicators Tool (CAIT) ver. 6.0 (<http://cait.wri.org>)
2. Emissions projections for 2020: Table 4. M. den Elzen & N. Höhne, Reductions of greenhouse gas emissions in Annex I and non-Annex I countries for meeting concentration stabilisation targets, Climate Change (2008), 91:249-274, p. 261
3. Population figures are from UN Department of Economic and Social Affairs, Population Division online database (<http://esa.un.org/unpp/index.asp>)



Linear decline of Annex I emissions assuming cuts of 20% below 1990 by 2020 and 80% below 1990 by 2050



Per capita emissions

