

Drought in Ethiopia:
A goatherd and his charges
negotiate the arduous
path to the waterhole.
Although the developing
world is worst hit by
global warming, the
phenomenon is primarily
caused by the industrial
countries.



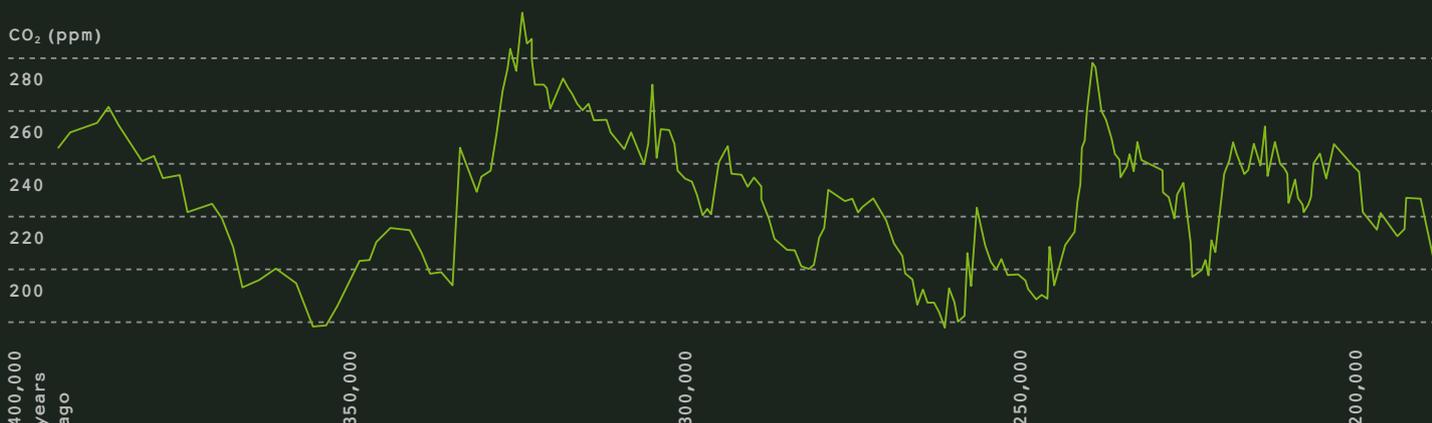
Climate change and justice — Change divides and unites

Prof. Hartmut Grassl

Greenhouse earth

The level of CO₂ in the atmosphere, which has varied between 180 and 280 ppm (parts per million) through successive geological eras, could rise to well over 500 ppm this century unless emissions worldwide are drastically reduced.

Source: National Geographic Society



The injustice of climate change is nothing short of scandalous, and cries out for a fair, globally coordinated policy of climate protection. If the developing world is ever to adapt to the new environmental conditions, it will need the support of the industrial nations.

Climate is our primordial natural resource. People can only survive in significant numbers in places where the sun provides enough warmth and sufficient water is available, the two constituting the basis of our plant foods. Changes in climate caused by shifts in the earth's orbit around the sun have altered that basis at intervals of tens and hundreds of thousands of years.

Although changes in the orbital ellipsis have caused the annual energy the earth derives from the sun to vary by a few per mille at most every 100,000 years, the climate zones have shifted dramatically. This is because differences in the angle of the earth's rotational axis and in the position of the ellipsis in space change the distribution of available energy across the earth's latitudes. Consequently, massive ice sheets have formed and disappeared, causing changes of more than 100 metres in sea levels.

The area which is now Germany has alternated throughout between tundra and glaciation, the mixed deciduous forests found in the current Holocene geological period lasting no more than about 10,000 years. Mankind has therefore had to undertake vast migrations, surviving in decimated communities or, in some areas, dying out completely.

The situation we now face is entirely different. Concentrations of carbon dioxide, the second most important greenhouse gas in the earth's atmosphere, are higher than at any time in man's history. On average, depending on our actions in the 21st century, the global climate will change at least 30 to 100 times faster than would be expected as result of natural processes. The fast-forward version of current, and in future even greater, climate changes: to him that has shall even more be given and from him that has not enough shall a portion be taken away.

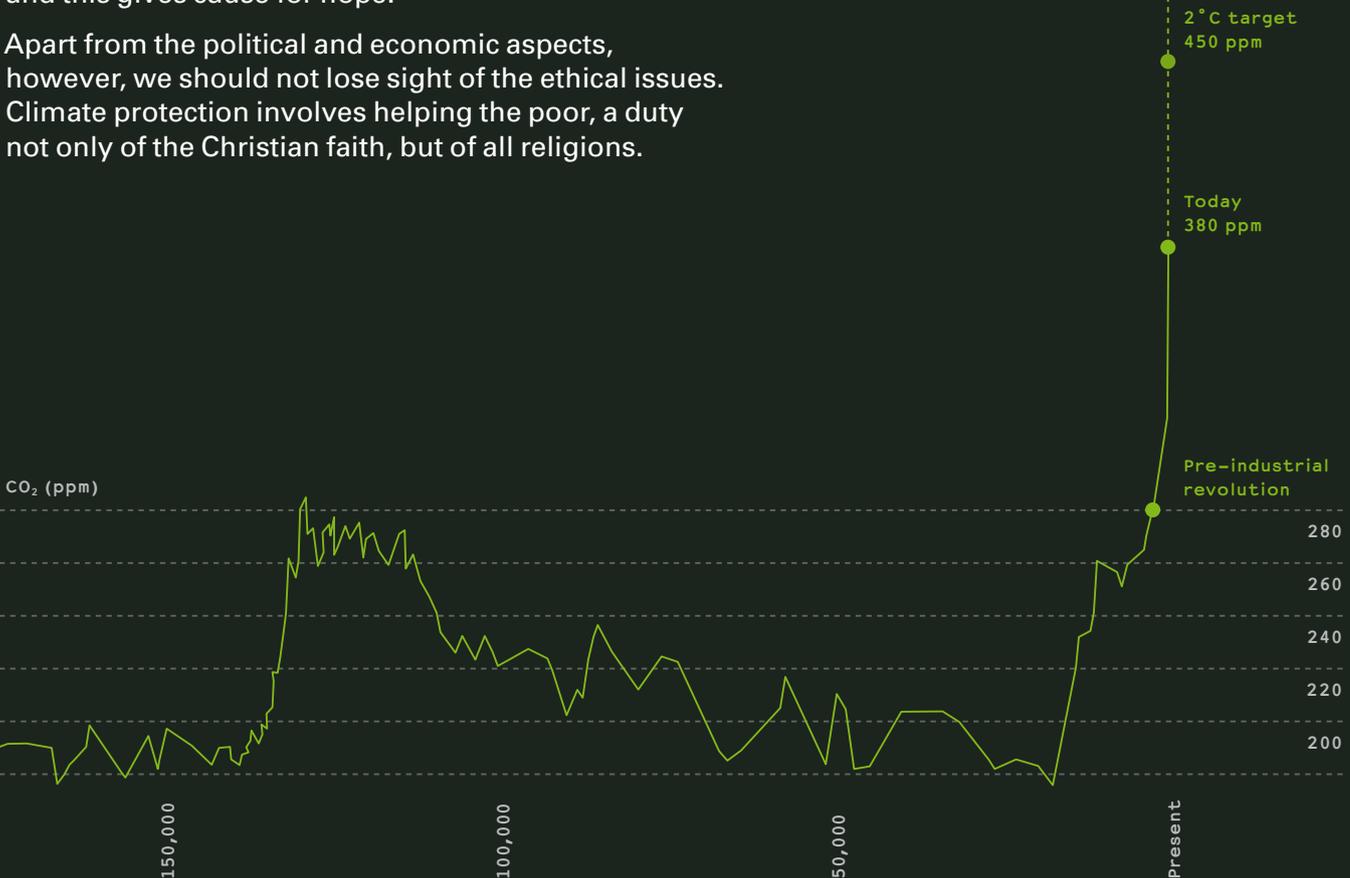
Since the industrialised world is largely responsible for the growing pace of climate change, the very injustice of it all is blatantly obvious. The vulnerable, i.e. poor people in developing countries, who have often played a very small part in climate change, have to stand by and watch as their livelihoods dwindle, and their aridified or inundated lands are lost. Migration flows also make it difficult to even partially solve two other related and equally serious issues: the need to reduce absolute poverty and the need to keep a check on population increases in the developing countries. The United Nations Millennium Development Goals for 2015 (to halve absolute poverty and ensure supplies of clean drinking water for all) are hampered by the speed of climate change. It is therefore up to the international community to act now, and organise a climate protection policy coordinated on a global scale.



Prof. Hartmut Grassl, former Director of the Max-Planck Institute for Meteorology in Hamburg and former Head of the Climate Research Programme of the World Meteorological Organisation (WMO), Geneva. He is a member of the foundation's Board of Trustees, and chairs the "Climate change and justice" project committee.

That the December 2007 Bali climate summit kept to the Kyoto Protocol timetable is grounds for hope. Although December 2008's Poznan climate talks failed to produce any appreciable returns, the 2009 summit in Copenhagen certainly looks set to yield tangible results. Emissions in the industrial countries should then be substantially reduced, and the emerging countries will be at least partly integrated into efforts to protect the climate. From the perspective of climate change and justice, it is significant that emissions trading helps reduce the financial burden that developing countries face in having to adapt to climate change. Germany already allocates a major share of the proceeds of its EU emissions sales to the funding of corresponding measures in developing countries, and this gives cause for hope.

Apart from the political and economic aspects, however, we should not lose sight of the ethical issues. Climate protection involves helping the poor, a duty not only of the Christian faith, but of all religions.



Thaw in Shishmaref:
Many communities in Alaska
will be forced to settle
elsewhere in the years to
come. Global warming is
causing the permafrost
to thaw, making the area
uninhabitable. The Inuit
are also losing their land
due to coastal erosion.

