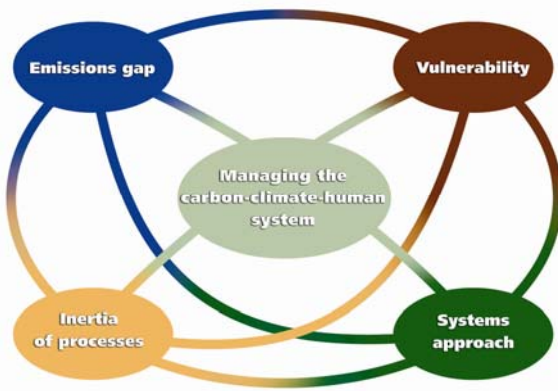




GCP aims to develop comprehensive, policy relevant understanding of the global carbon cycle encompassing its natural and human dimensions and their interactions.

State of the carbon cycle:  
GCP provides an annual update of the global carbon budget

The annual growth rate of global fossil-fuel CO<sub>2</sub> emissions has increased from 0.83% y<sup>-1</sup> for the decade 1990-1999 to 3.25% y<sup>-1</sup> for 2000-2005, associated with an increased fossil-fuel intensity of Gross World Product (emissions per unit economic activity) since 2000.



The coupled carbon-climate-human system encompasses the linked dynamics of natural biophysical processes and human activities.

Key attributes of this include:

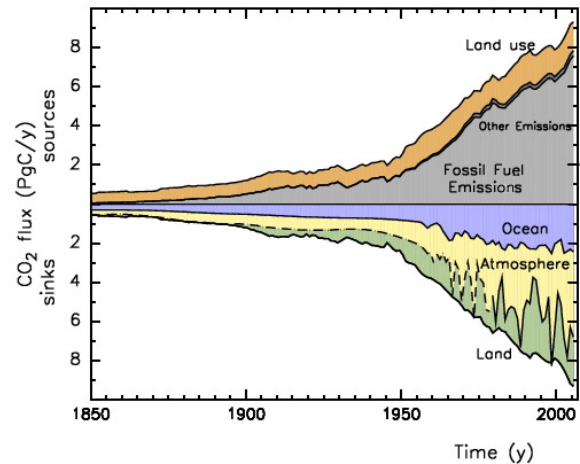
**the emissions gap** between actual and target CO<sub>2</sub> emissions,

**vulnerability** of carbon sinks and sources to increased warming and land use change,

**inertia of processes** affecting increased atmospheric CO<sub>2</sub> concentration and the need for a

**systems approach** that integrates carbon management into a broader set of rules and institutions governing the human enterprise.

Global Carbon Budget 1850-2005



Prepared by Corinne Le Quéré

The CO<sub>2</sub> budget during 1850-2005 shows the fate of the emitted CO<sub>2</sub>, fossil fuel and land use change, including the increase in atmospheric CO<sub>2</sub>, as well as the sinks of CO<sub>2</sub> on land and in the ocean. Flux is in Pg y<sup>-1</sup> CO<sub>2</sub> on the left axis.