

Issue #1: Evaluating the State of Climate Science [NRC, 2005]

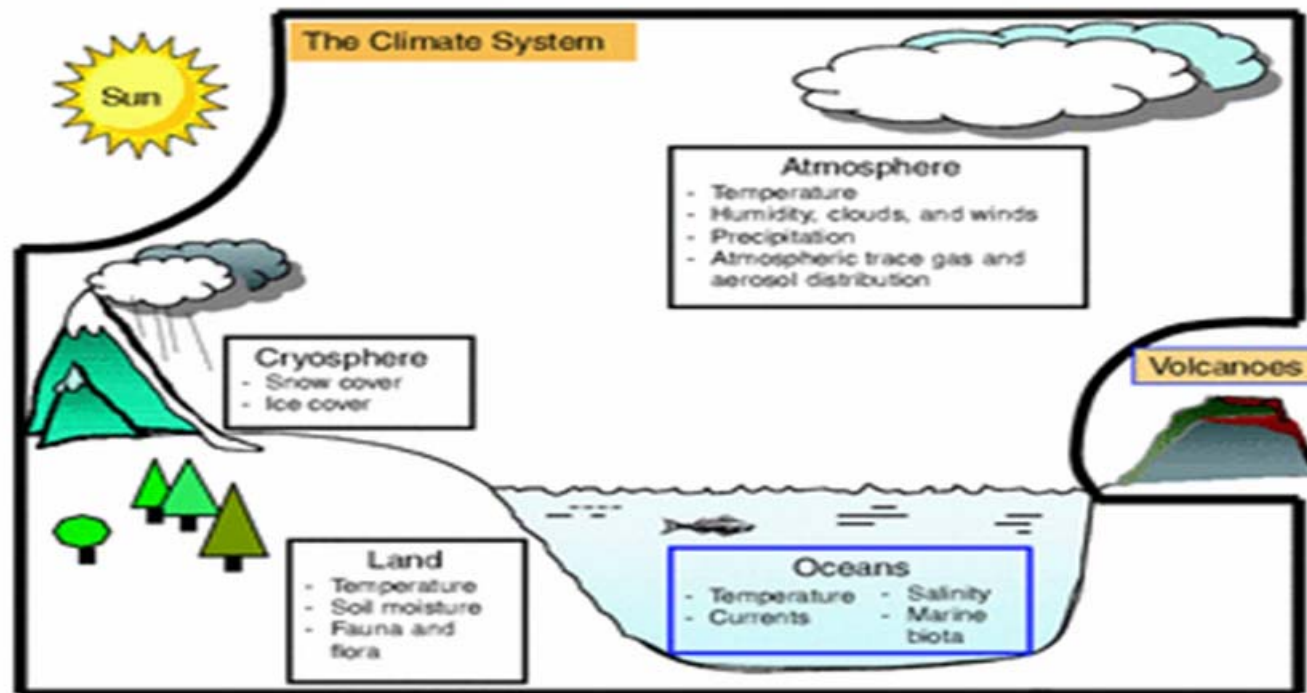
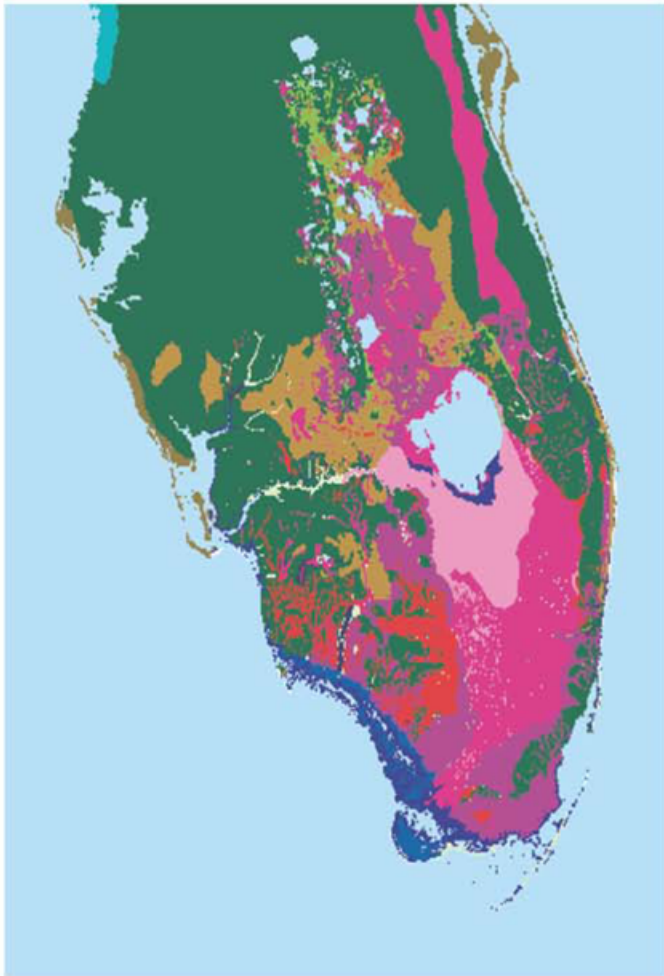


FIGURE 1-1 The climate system, consisting of the atmosphere, oceans, land, and cryosphere. Important state variables for each sphere of the climate system are listed in the boxes. For the purposes of this report, the Sun, volcanic emissions, and human-caused emissions of greenhouse gases and changes to the land surface are considered external to the climate system.

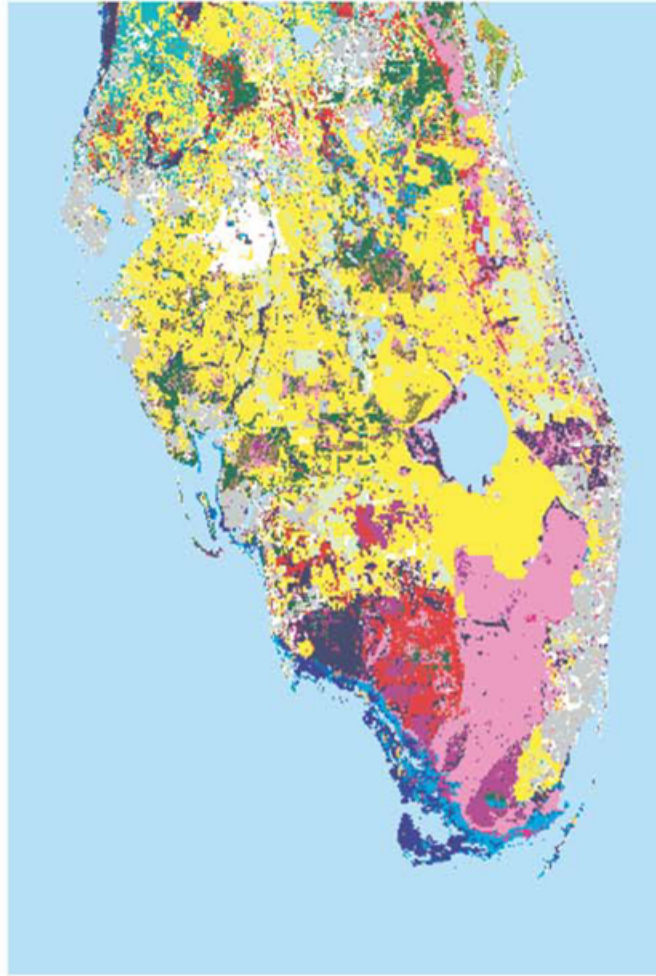
Climate Science Assessments Have Been Significantly Incomplete

- *Additional forcing factors not included here are considered to have a very low LOSU [IPCC, 2007]*
- *The IPCC ignored or inadequately assessed i) a variety of other climate forcings (e.g. land use change; the role of aerosols in rain and snow amounts) [e.g. NRC, 2005]*
- *There is a significant amount of real world data that conflicts with the findings in the 2007 IPCC report [e.g. Pielke Sr. 2008]*
- *The costs and benefits of the regulation of the emissions of CO₂ into the atmosphere need to be evaluated together with all other possible environmental regulations. The goal should be to seek politically and technologically practical ways to reduce the vulnerability of the environment and society to the entire spectrum of human-caused and natural risks.*
- *The acceptance of CO₂ as a pollutant by the EPA , yet it is a climate forcing not a traditional atmospheric pollutant, opens up a wide range of other climate forcings which the EPA could similarly regulate (e.g., land use, water vapor).*

Pre-1900s



1993



-  Open Water
-  EvGrn NL Tree
-  Decid BL Tree
-  EvGrn BL Tree
-  Grasses
-  Shrubs
-  Mixed Woodland
-  Crop/Mixed Farming
-  Slough, Bog, or Marsh
-  Urban/Roads, Rock, Sand
-  Saw Grass/Other Marshes
-  EvGrn Shrub Wetland
-  Mangroves
-  Decid NL/Swamp (Cypress)
-  Wet Prairie Marsh
-  Mixed Residential
-  Woody Wetlands
-  Saltwater Marsh

Three hypotheses: Only One of Which Can Be True

- 1. The human influence on climate variability and change is of minimal importance, and natural causes dominate climate variations and changes on all time scales. In coming decades, the human influence will continue to be minimal [The "Skeptics" View]*
- 2. Although the natural causes of climate variations and changes are undoubtedly important, the human influences are significant and are dominated by the emission of greenhouse gases into the atmosphere, the most important of which is carbon dioxide. The impact of these gases on regional and global climate constitutes the primary climate issue for the coming decades [The IPCC View]*
- 3. Although the natural causes of climate variation and changes are undoubtedly important, human influences are significant and involve a diverse range of first-order climate forcings, including, but not dominated by the human input of CO₂. Most, if not all, of these human influences on regional and global climate will continue to be of concern during the coming decades [The Inclusive View]*

Issues #2 and #3: The Institutional Structure of the IPCC/ Translating Climate Science for Use by Policymakers

- The IPCC and CCSP assessments, as well as the science statements completed by the AGU, AMS and NRC, are completed by a small subset of climate scientists who are led by the same individuals. They are evaluating the robustness of their own research; One Example Of A Conflict of Interest - Tom Karl, Director National Climate Data Center
- Science Assessments Should Not Be Completed By Scientists Who Are Assessing Their Own Research

