

## GHG Science, Law and Policy History

1. The IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme
2. The IPCC provides policy makers with assessment of the current state of climate change
  - a. There are more than 150 participating countries
3. The IPCC evaluates current research. It does not carry out its own original research.
  - a. A main activity of the IPCC is to publish assessment reports (ARs) on topics relevant to the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) (see below)
  - b. ARs are published about every six years. AR1 was published in 1990, AR4 was published in 2007, AR5 is due in 2012 to 2013.
4. More than 44 writing teams and 450 lead authors contributed to AR4.
  - a. Authors, who donate their time, are selected on the basis of their expertise in consultation with all member countries and include experts in the fields of meteorology, physics, oceanography, statistics, engineering, ecology, social sciences and economics.
  - b. For AR4, the authors were assisted by another 800 scientists and analysts who served as contributing authors on specific topics.
  - c. After completion of the draft documents, 2,500 reviewers together provided about 90,000 comments on the 44 chapters for the AR4. Review editors worked with the authors insure that each comment was treated properly and honestly in the revision.
    - i. The US Government opened its reviews of the draft IPCC report to any US expert who wanted to review it and the government assembled its own independent panel of government experts to vet the comments before submission to the IPCC.
5. A few conclusions from AR4:
  - a. “Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.”
  - b. “Most of the observed increase in global average temperatures since the mid-20<sup>th</sup> century is *very likely* (probability >95%) due to the observed increase in *anthropogenic* greenhouse gas concentrations.”
    - i. This is an advance since AR3’s conclusion that “most of the observed warming over the last 50 years is *likely* (probability >67%) to have been due to the increase in greenhouse gas concentrations.” (Italics mine).
  - c. “Discernible human influences now extend to other aspects of climate, including ocean warming, continental-average temperatures, temperature extremes and wind patterns.”

6. The United Nations Framework Convention on Climate Change (UNFCCC) was opened for signature at the 1992 Earth Summit in Rio and committed signatories' governments to a voluntary "non-binding aim" to reduce atmospheric concentrations of greenhouse gases with the goal of "preventing dangerous anthropogenic interference with Earth's climate system."
  - a. These actions were aimed primarily at industrialized countries, with the intention of stabilizing their emissions of GHGs at 1990 levels by the year 2000
  - b. The Senate consented to ratification on October 7, 1992 and President Bush signed the instrument of ratification October 13, 1992.
  - c. UNFCCC entered into force March 21, 1994.
7. Conference of the Parties (CoP)
  - a. In 1995 signatories began meeting annually for the purpose of developing further agreements to implement the goals of the UNFCCC
  - b. At CoP 3 in 1997, the Kyoto Protocol was adopted by the parties
  - c. CoP 16 will be held in Cancun in December
8. Kyoto Protocol
  - a. Kyoto's goal is to reduce GHG emissions to 5% below their 1990 levels by the year 2012
    - i. This amounts to about a 30% reduction by 2012 based on GHG trajectories
  - b. Requires member countries to quantify and reduce (or in some cases, increase) their GHG emissions by a preset amount by the year 2012
    - i. Individual country goals range from an increased output of 15% (Spain) to 0% reduction (Russia) to 21% reduction (Germany). The proposed reduction goal for the U.S. was 7%.
  - c. Promotes Cap and Trade market mechanisms
  - d. Kyoto went into effect on 2/16/05; will expire at the end of 2012
  - e. The U.S. never ratified the Kyoto Protocol
9. AB 32 – California Global Warming Solution Act of 2006
  - a. Requires ARB to reduce GHG emissions to 1990 levels by 2020.
    - i. This represents approximately 25% reduction based on current trajectories
  - b. Mandates the monitoring and annual reporting of GHG emissions by all sources "of significance"
  - c. Mandates the development and implementation of GHG emission reduction measures
  - d. Delegates broad authority to the CARB to implement these mandates in accordance with an aggressive series of deadlines.