

UNST 124g fall 2011
Where do we go from here?

1 introduction

The Intergovernmental Panel on Climate Change (IPCC) is an international scientific body established by the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO) to coordinate and write clear scientific reports on the current state of knowledge regarding changes in Earth's climate and associated environmental, social, and economic impacts. The IPCC assesses both current conditions and projections of future change. The IPCC is open to all member countries of the United Nations and WMO and its reports reflect the peer-reviewed, published work of the global scientific community.

The work of the IPCC is divided by area of focus into three Working Groups who review the scientific literature and two Task groups whose efforts center on data and methodologies. You can read more about these groups at the IPCC web site. In brief, Working Group I focusses on the physical scientific basis for understanding Earth's climate system and climate change. Working Group II assesses the consequences of climate change, vulnerability of Earth systems ("natural" and human/cultural), and options for adaptation. Working Group III reports on strategies for mitigating climate change by limiting greenhouse gas emissions and enhancing their removal from the atmosphere.

The IPCC publishes a variety of scientific reports, all of which are collaborative and subject to peer review. The IPCC also produces synthesis reports and summaries of key findings, written in a less technical manner than the other reports. All of these documents are written and reviewed by research scientists, though the Summaries for Policy Makers (SPMs) also include review by representatives of the governments of participating countries. The most recent collection of Working Group reports, Synthesis Report, and Summaries—the Fourth Assessment Report—was published in 2007. Here you are asked to read the 2007 Synthesis Report SPM.

2 assignment

The Synthesis Report SPM is organized by themes (observed change, causes of change, and so on). Key points regarding each theme are summarized and evaluated in terms of the *confidence* with which each point may be made. Each key point is accompanied by a reference to the supporting analysis reported elsewhere in the Fourth Assessment Report. This short document represents thousands of scientific studies conducted by hundreds of scientists.

This assignment has two parts.

1. As you read the report, take two sets of parallel notes, one in which you identify the key findings as they appear in the SPM and one in which you write what this means in your own words. The

easiest way to organize this is as two columns on a piece of paper. In one column record key points from the SPM and in the other column, write down what it means in your words, including notes about findings and measurements that surprise or interest you. Be sure to include section and page numbers as reference.

As an example, section 1, *Observed changes in climate and their effects* highlights three key findings (in bold, blue text) and then provides detail about each of the three. In your notes for section 1 you should identify those three key findings in one column and then add detail that helps you understand what the main point is about, in your own words and via direct quotes, in the second column.

2. Figure SPM.7 organizes the projected impacts of global warming by the system affected and magnitude of global mean warming. Each mentor section will be assigned one or more system and asked to investigate specific impacts by finding the discussion about them in the whole IPCC Fourth Assessment Report and writing a summary (2 or 3 paragraphs) of what you read there. Your summary may include a graph or other graphic that helps communicate the main points found in the report.

You are asked to bring both parts of the assignment to class for discussion on March 12th.

3 references

IPCC. (2007). Climate Change 2007: Synthesis Report **Summary for Policymakers**. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Core Writing Team, Pachauri, R.K and Reisinger, A. (Eds.). IPCC: Geneva, Switzerland. Retrieved from http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf