

Backgrounder – IPCC reports

On September 27, 2013 the Intergovernmental Panel on Climate Change (IPCC) will release a summary of its latest assessment on the science of global climate change at a meeting in Stockholm.

What are the IPCC Assessment Reports?

The purpose of the Assessment Reports is to provide a comprehensive review of the global state of knowledge of the science of climate change. The reports also examine the social and economic impacts and discuss possible response strategies. This will be the Fifth Assessment Report (AR5) the IPCC has produced; the first was delivered in 1990. The Fourth Assessment Report (AR4) was released in 2007.

Who writes the report?

The IPCC conducts no research of its own, but enlists hundreds of volunteer climate scientists, geographers and experts in mathematical modelling from around the world to review previously published studies and synthesize the Assessment Reports and the accompanying Summary for Policymakers. The authors are nominated by participating governments and non-governmental organizations and selected by the bureau of the appropriate Working Group (see below). First-order drafts are produced and reviewed within the Working Groups; in second-order drafts the reviewers also include participating governments. The Final Drafts of each working group are presented and approved at meetings of the IPCC.

What are the Working Groups? What is being presented this week?

The IPCC has always been divided into three Working Groups. Working Group I assesses the physical science basis of climate change. The group will meet and present its findings to the IPCC from September 23-26, 2013 in Stockholm, Sweden. The Summary for Policymakers will be released September 27, 2013. The Final Draft of the Working Group I contribution to AR5 will be released September 30, 2013. The completed report will be published in January 2014.

The reports from the other Working Groups will follow in 2014 and focus on the impacts of climate change and what might be done to manage the problem.

What does the language in the report mean?

The Assessment Report and the Summary for Policymakers use very specific language to indicate the level of uncertainty about the results. For example, the phrase *extremely likely* indicates a 95-100% probability of the outcome occurring, while *very likely* indicates a 90-100% probability and *likely* indicates only a 66-100% probability. More detail on the report's treatment of uncertainty can be found here: <http://www.ipcc.ch/pdf/supporting-material/uncertainty-guidance-note.pdf>

What should we watch for in the Fifth Assessment Report?

The main expectation is that AR5 will provide greater confidence on the cause of climate change than AR4. For example, the previous report indicated that the rise in global average temperatures since the mid 20th century was "very likely" (>90% probability) due to anthropogenic greenhouse gas emissions. A leaked draft of the AR5 describes this same outcome as "extremely likely", or a >95% probability. In the five years since the last report, researchers have acquired more data and improved the models used to forecast climate change. Thus, revised estimates of global temperature rises based on various emissions scenarios as well as improved estimates of sea level rise are expected.

By the numbers – Fifth Assessment Report, Working Group I – Physical Science Basis

Authors: **209** Lead Authors, **50** Review Editors and over **600** Contributing Authors from **39** countries

Publications cited: over **9200**

Total reviews: **54,677** comments from **1089** Expert Reviewers and **38** governments

More information about the Fifth Assessment report can be found at www.climatechange2013.org