

1: IPCC. Climate Change Synthesis Report | www.enganchecubano.com

The Fifth Assessment Report (AR5) was prepared according to Appendix A to the Principles Governing IPCC Work on Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports. In accordance with this, the first draft of the Synthesis Report was submitted for simultaneous expert and government review.

General[edit] Warming of the atmosphere and ocean system is unequivocal. Many of the associated impacts such as sea level change among other metrics have occurred since at rates unprecedented in the historical record. There is a clear human influence on the climate It is extremely likely that human influence has been the dominant cause of observed warming since , with the level of confidence having increased since the fourth report. IPCC pointed out that the longer we wait to reduce our emissions, the more expensive it will become. It is virtually certain the upper ocean warmed from to It can be said with high confidence that the Greenland and Antarctic ice sheets have been losing mass in the last two decades and that Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease in extent. There is high confidence that the sea level rise since the middle of the 19th century has been larger than the mean sea level rise of the prior two millennia. Concentration of greenhouse gases in the atmosphere has increased to levels unprecedented on earth in , years. Play media This video presents projections of 21st century temperature and precipitation patterns based on a buildup of greenhouse gases with a combined effect equivalent to ppm of atmospheric CO₂, a scenario the IPCC called "RCP4. The changes shown compare the model projections to the average temperature and precipitation benchmarks observed from 1950 to 1980." Climate models have improved since the prior report. Model results, along with observations, provide confidence in the magnitude of global warming in response to past and future forcing. Projections[edit] Further warming will continue if emissions of greenhouse gases continue. The global surface temperature increase by the end of the 21st century is likely to exceed 1. The oceans will continue to warm, with heat extending to the deep ocean, affecting circulation patterns. Decreases are very likely in Arctic sea ice cover, Northern Hemisphere spring snow cover, and global glacier volume Global mean sea level will continue to rise at a rate very likely to exceed the rate of the past four decades Changes in climate will cause an increase in the rate of CO₂ production. Increased uptake by the oceans will increase the acidification of the oceans. Future surface temperatures will be largely determined by cumulative CO₂, which means climate change will continue even if CO₂ emissions are stopped. The summary also detailed the range of forecasts for warming, and climate impacts with different emission scenarios. Compared to the previous report, the lower bounds for the sensitivity of the climate system to emissions were slightly lowered, though the projections for global mean temperature rise compared to pre-industrial levels by exceeded 1. HadGEM2 can produce hundreds of terabytes to perhaps tens of petabytes of climate model data for analysis. Instead of the scenarios from the Special Report on Emissions Scenarios the models are performing simulations for various Representative Concentration Pathways. Public debate after the publication of AR4 in put the IPCC under scrutiny, with controversies over alleged bias and inaccuracy in its reports. In , this prompted U.

2: CLIMATE CHANGE SYNTHESIS REPORT - Digital Library

This Synthesis Report is based on the reports of the three Working Groups of the Intergovernmental Panel on Climate Change (IPCC), including relevant Special Reports. It provides an integrated view of climate change as the final part of the IPCC's.

It contains the scientific work of about scientists during five years. Only one day after the approval in Copenhagen, key contributors presented its most important findings to stakeholders, media and public in Bern on 3 November. For the first time, the report is not just an aggregation but puts the content into an integral perspective and emphasizes cross-cutting issues. He emphasised in his welcome remarks, that one result of the Synthesis Report is that the human influence on climate change is clear. In his presentation he shared his view about the future direction of IPCC. Presentation Thomas Stocker Prof. Research in climate topics has got a long tradition in Bern, it goes back to times, when climate issues were not seen as important as today. Its work is objective, provides an integrated vision and clear statements and gives guidelines to politics. Climate politics are important for Switzerland as the country is highly vulnerable. She hopes that the findings of the newest IPCC report relay a solid ground for decisions on the next climate summit in Lima in December and then in Paris next year. Each and every country has to be ready to do its share. Leuthard assured that Switzerland is committed to be an ambitious country. Rajendra Pachauri, Chair of IPCC, pointed out that the more we disrupt our climate, the more we risk severe, pervasive and irreversible impacts. As potential impacts of Climate Change Pachauri listed food and water shortages, increased displacement of people, more poverty and coastal flooding. Presentation Rajendra Pachauri Prof. Some climate change impacts that China already underwent were low-temperature, freezing rain and snow hazards or extreme hazes in several cities. Presentation Qin Dahe Prof. Jochem Marotzke, Max Planck Institute for Meteorology, focused on the observed changes and their causes. Presentation Jochem Marotzke Prof. Together with adaptation, reduction of greenhouse gas emissions could limit climate change risks. Presentation Petra Tschakert Dr. Leon Clarke, Joint Global Change Research Institute, explained that mitigation requires changes throughout the economy and that systemic approaches are expected to be most effective. Mitigation efforts in one sector determine efforts in others. Presentation Leon Clarke Prof. John Broome, University of Oxford, spoke about decision making and ethics in confronting climate change, as for the first time these topics are integrated in an IPCC report. Presentation John Broome Dr.

3: Summary for Policymakers – IPCC

The Synthesis Report (SYR) of the IPCC Fifth Assessment Report (AR5) provides an overview of the state of knowledge concerning the science of climate change, emphasizing new results since the publication of the IPCC Fourth Assessment Report in (AR4).

This section of the report, *Climate Change: The Physical Science Basis*, assessed current scientific knowledge of "the natural and human drivers of climate change" as well as observed changes in climate. It looked at the ability of science to attribute changes to different causes, and made projections of future climate change. It was produced by authors lead authors, 26 review editors, and contributing authors from 40 countries, then reviewed by over expert reviewers. More than 6, peer-reviewed publications were cited. Changes in the atmosphere[edit] Carbon dioxide , methane , and nitrous oxide are all long-lived greenhouse gases. How much each contributes is not well determined. More than a third of this rise is due to human activity, primarily agriculture. Hot days, hot nights, and heat waves have become more frequent. Eleven of the twelve years in the period – rank among the top 12 warmest years in the instrumental record since Warming in the last years has caused about a 0. This is up from the 0. Urban heat island effects were determined to have negligible influence less than 0. Average Northern Hemisphere temperatures during the second half of the 20th century were very likely higher than during any other year period in the last years and likely the highest in at least the past years including both the Medieval Warm Period and the Little Ice Age. Ice, snow, permafrost, rain, and the oceans[edit] The SPM documents increases in wind intensity, decline of permafrost coverage, and increases of both drought and heavy precipitation events. Ocean warming causes seawater to expand, which contributes to sea level rising. Sea level rose at an average rate of about 1. The rise in sea level during – was at an average rate of 3. It is not clear whether this is a long-term trend or just variability. Antarctic sea ice shows no significant overall trend, consistent with a lack of warming in that region. Hurricanes[edit] There has been an increase in hurricane intensity in the North Atlantic since the s, and that increase correlates with increases in sea surface temperature. The observed increase in hurricane intensity is larger than climate models predict for the sea surface temperature changes we have experienced. There is no clear trend in the number of hurricanes. Other regions appear to have experienced increased hurricane intensity as well, but there are concerns about the quality of data in these other regions. Table SPM-2 lists recent trends along with certainty levels for the trend having actually occurred, for a human contribution to the trend, and for the trend occurring in the future. In relation to changes including increased hurricane intensity where the certainty of a human contribution is stated as "more likely than not" footnote f to table SPM-2 notes "Magnitude of anthropogenic contributions not assessed. Attribution for these phenomena based on expert judgment rather than formal attribution studies. The report shows in detail the individual warming contributions positive forcing of carbon dioxide, methane, nitrous oxide, halocarbons , other human warming factors, and the warming effects of changes in solar activity. Also shown are the cooling effects negative forcing of aerosols , land-use changes, and other human activities. All values are shown as a change from pre-industrial conditions. Climate sensitivity[edit] Climate sensitivity is defined as the amount of global average surface warming following a doubling of carbon dioxide concentrations. As a result, predictions for the 21st century are as shown below. Surface air warming in the 21st century: Best estimate for a "low scenario" [13] is 1. A temperature rise of about 0. Confidence in these near-term projections is strengthened because of the agreement between past model projections and actual observed temperature increases. Based on multiple models that all exclude ice sheet flow due to a lack of basis in published literature, [15] it is estimated that sea level rise will be: It is likely that there will be an increase in areas affected by droughts , intensity of tropical cyclones which include hurricanes and typhoons and the occurrence of extreme high tides. Temperature and sea level rise in the various scenarios[edit] There are six families of SRES scenarios, and AR4 provides projected temperature and sea level rises excluding future rapid dynamical changes in ice flow for each scenario family. The now-published text gives a warning that the new estimation of sea-level could be too low: Lord Rees , the president of the Royal Society , said, "This report makes it clear, more convincingly than ever before, that

human actions are writ large on the changes we are seeing, and will see, to our climate. The IPCC strongly emphasises that substantial climate change is inevitable, and we will have to adapt to this. This should compel all of us – world leaders, businesses and individuals – towards action rather than the paralysis of fear. We need both to reduce our emissions of greenhouse gases and to prepare for the impacts of climate change. Those who would claim otherwise can no longer use science as a basis for their argument. The 46 countries included the European Union nations, but notably did not include the United States, China, Russia, and India, the top four emitters of greenhouse gases. The full report was released September 18, WGII states that "evidence from all continents and most oceans shows that many natural systems are being affected by regional climate changes, particularly temperature increases. With a high confidence about an 8 in 10 chance to be correct WGII asserts that climate change has resulted in: More and larger glacial lakes. Increasing ground instability in permafrost regions. Increasing rock avalanches in mountain regions. Changes in some Arctic and Antarctic ecosystems. Increased run-off and earlier spring peak discharge in many glacier and snow-fed rivers. Changes affecting algae, plankton, fish and zooplankton because rising water temperatures and changes in: Spring events such as the unfolding of leaves, laying of eggs, and migration are happening earlier. There are poleward and upward to higher altitude shifts in ranges of plant and animal species. WGII also states that the ocean has become more acidic because it has absorbed human-caused carbon dioxide. Ocean pH has dropped by 0. Attribution of changes[edit] WGII acknowledges some of the difficulties of attributing specific changes to human-caused global warming, stating that "Limitations and gaps prevent more complete attribution of the causes of observed system responses to anthropogenic warming. Fresh water[edit] It is projected with high confidence that: Dry regions are projected to get drier, and wet regions are projected to get wetter: Heavy precipitation events are very likely to become more common and will increase flood risk. Water supplies stored in glaciers and snow cover will be reduced over the course of the century. Ecosystems[edit] It is projected with high confidence that: The resilience of many ecosystems is likely to be exceeded this century by a combination of climate change and other stressors. Carbon removal by terrestrial ecosystems is likely to peak before mid-century and then weaken or reverse. This would amplify climate change. Coastal systems[edit] It is projected with very high confidence that: Coasts will be exposed to increasing risks such as coastal erosion due to climate change and sea-level rise. The original draft read: Mitigation measures will therefore also be required. Mitigation of Climate Change[edit] See also: One of the key debates concerned a proposal to limit concentrations of greenhouse gases in the atmosphere to between parts per million and parts per million to avoid dangerous climate change, with pressure from developing countries to raise the lower limit. Despite this, the figures from the original proposal were incorporated into the Summary for Policymakers. It also provides information on long-term mitigation strategies for various stabilization levels, paying special attention to implications of different short-term strategies for achieving long-term goals. More fuel efficient vehicles; electric vehicle; hybrid vehicles; cleaner diesel vehicles; biofuels; modal shifts from road transport to rail and public transport systems; non-motorised transport cycling, walking; land-use and transport planning Second generation biofuels; higher efficiency aircraft; advanced electric and hybrid vehicles with more powerful and reliable batteries Buildings Efficient lighting and daylighting; more efficient electrical appliances and heating and cooling devices; improved cook stoves, improved insulation; passive and active solar design for heating and cooling; alternative refrigeration fluids, recovery and recycle of fluorinated gases.

4: IPCC Fifth Assessment Report - Wikipedia

The Synthesis Report distils and integrates the findings of the IPCC Fifth Assessment Report produced by over scientists and released over the past 13 months - the most comprehensive assessment of climate change ever undertaken.

Image courtesy Mike Segar Reuters The latest report from the Intergovernmental Panel on Climate Change IPCC , has concluded that human influence on the climate system is clear and growing, and if left unchecked will have severe and irreversible consequences. It expresses with even greater certainty than previous assessments, that anthropogenic drivers such as the emissions of greenhouse gases have been the dominant causes of observed global warming since the middle of the 20th century. Produced by about 60 authors and editors, who were supported by coordinating lead authors and review editors from over 80 countries. The report brought together experts in a range of scientific, technical and socio-economic views and expertise, who assessed more than 30, scientific papers on climate change and its associated fields. Pachauri, who said the report makes it clear those who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change. He added the least developed countries are particularly at risk given their limited ability to cope. Pachauri, said the report makes it clear those who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change. However, it also found that options are available to adapt to climate change. The implementation of stringent mitigations activities could ensure the impacts of climate change remain within a manageable range, enabling the creation of a brighter and more sustainable future. But while adaption will play a vital role, according to the report it will not be enough. The longer we wait to take action, the more it will cost to adapt and mitigate climate change. IPCC Synthesis Report Findings The report concludes that the warming of the climate system is unequivocal, and states many of the observed changes since the s are unprecedented over decades to millennia. Both the atmosphere and oceans have warmed, while the amounts of snow and ice have diminished, and sea levels have risen. Anthropogenic greenhouse gas emissions are now higher than ever before. Driven largely by economic and population growth, they have increased since the pre-industrial era, which has led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide that are unprecedented in at least the last , years. Changes in climate from both natural and anthropogenic causes over recent decades have impacted on natural and human systems on all continents and across the oceans, which indicates the sensitivity of both natural and human systems to changing climate. Changes in many extreme weather and climate events have been observed since the s and have been linked to human influences. Including a decrease in extreme cold temperatures, as well as an increase in extreme warm temperatures, high sea levels, and the number of heavy precipitation events in many regions. Continued emission of greenhouse gases will cause further effect on all components of the climate system. This will increase the possibility of severe, pervasive and irreversible impacts for people and ecosystems around the globe. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks. Many aspects of climate change and associated impacts will continue for centuries, even if anthropogenic emissions of greenhouse gases are stopped. The risks of abrupt or irreversible changes increase as the magnitude of the warming increases.

5: IPCC Fifth Assessment Synthesis Report – IPCC

Approved Summary for Policymakers IPCC Fifth Assessment Synthesis Report decade), which begins with a strong El Niño±0, is smaller than the rate calculated since (; [to] Å°C per decade).

6: IPCC Fourth Assessment Report - Wikipedia

The Synthesis Report (SYR) of the IPCC Fifth Assessment Report (AR5) provides an overview of the state of knowledge

concerning the science of climate change, emphasizing new results since the publication of the IPCC Fourth Assessment Report (AR4) in

7: Climate Change Synthesis Report - World | ReliefWeb

With the publication of the Synthesis Report earlier this month, the publication cycle of the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) is now complete. To discuss the implications of the results for Austria, the Climate and Air Quality Commission of the Austrian Academy of Sciences will host a panel of.

8: IPCC Synthesis Report Meeting Report | | Publikation | Naturwissenschaften Schweiz

The Fifth Assessment Synthesis Report, as it's called, pulls together the conclusions of three IPCC working groups, which issued reports over the past year on the underlying science, the impacts.

9: Fifth Assessment Report - Synthesis Report

This Synthesis Report is based on the reports of the three Working Groups of the Intergovernmental Panel on Climate Change (IPCC), including relevant Special Reports. It provides an integrated view of climate change as the final part of the IPCC's Fifth Assessment Report (AR5).

Saint Michaels Hymnal Choir Edition The Sphere of Religion, by J. W. Oman. Puerto Rican Chicago (IL) Workbook to accompany Rendez-vous Biological Control of Arthropod Pests of the Northeastern and North Central Forests in the United States State of the Masses Evaluation of Customer Service Living Science Class 6 International Law Codified and Its Legal Sanction Learn Use Microsoft Word in Your Classroom (Learn Use) A Decade of Crisis : 1929-1939 Bass Arpeggio Finder My Husband is a Mafia Boss Book 2 Differential Diagnosis and Office Evaluation of Peripheral Arterial Disease Thom W. Rooke Cambria County, Pa Willbook Index A Practical Guide to Equal Opportunities CHARLES MINGUS VOLUME 68 Advice to the WoWlorn Jody Lynn Nye Pre-Lab Exercises for Experimental Organic Chemistry The Count of Monte Cristo Volume I (Large Print) Cuban Political Economy Yoga Christianity Scan Papers to Machine Tooling and Toolmaking Memoirs of the Life of Count de Grammont Optogalvanic Effect in Ionized Gas Sunset The Get-Away Gourmet (Picnics Tailgate Parties Cookouts) The Times Guides to the House of Commons Encounters of the Spirit Wanting What You Have The Aficionados Southwestern Cooking. Bear Market Investment Strategies British Policy and the Transfer of Power in Asia: Documentary Perspectives 1st Grade Spelling Worksheets The Insiders Guide to Eastern Canada/Book and Map (Serial) Ice, Iron and Gold 2010 Silverado Service Manual Murder Mystery 8 People Robert Wayne Job Application Reconstruction and Cold War in Germany