



# A SUMMIT OF SCIENCE FOR POLITICS

Newsletter from the World's most important scientific congress on climate change



The Synthesis Report is ready for download at [www.climatecongress.ku.dk](http://www.climatecongress.ku.dk)

## The synthesis report has been released today

Today the synthesis report from the IARU international scientific congress *Climate Change: Global Risks, Challenges & Decisions* was presented at the European Policy Centre (EPC) in Brussels. The climate congress held on 10 – 12 March 2009 in Copenhagen delivered six key messages from the scientific community to the world leaders.

The synthesis report provides the background for and the explanation of these six key messages. This full report was handed over to the new Prime Minister of Denmark and host of the UN Climate Change Conference (COP15) in December, Mr. Lars Løkke Rasmussen. The Danish government will hand over these messages to COP15 decision makers.

"The report is intended to be an inspiration for politicians and a tool for broadening the understanding of global warming, its causes and consequences with only six months to go before the COP15 takes place in Copenhagen", explains Professor Katherine Richardson, Chair of the Scientific Steering Committee of the congress and the writing team.

"The report gives an important overview of what science can tell us today about global warming, and perhaps most importantly what we can do about it. The report presents the very newest scientific evidence that has emerged since the IPCC report came out in 2007. I hope the busy negotiators will have time to study the report carefully before they meet in Copenhagen, because

a lot of new data have emerged", says Katherine Richardson who presented the report together with two other members of the writing team: Professor John Schellnhuber, Director of the Potsdam Institute of Climate Impact Research and Chairman of the Munasinghe Institute for Development, Professor Mohan Munasinghe.

The report has been written by a team of 12 international climate experts and it has undergone an extensive international review by the Scientific Steering Committee, the session chairs, the Earth System Science Partnership (ESSP) and by a group of scientists from the International Alliance of Research Universities (IARU). The details of the process can be found at [www.climatecongress.ku.dk](http://www.climatecongress.ku.dk)

The congress *Climate Change: Global Risks, Challenges & Decisions* was arranged by the International Alliance of Research Universities (IARU). Approximately 2000 scientists from over 70 countries participated. During three days they discussed the challenges of climate change within a broad range of areas from sea level rise and health aspects to security aspects, renewable energies and development perspectives.

The synthesis report is available for download at: [www.climatecongress.ku.dk](http://www.climatecongress.ku.dk)

### Key messages inspire globally

Since the six key messages were presented at the IARU congress in March there has been a great deal of interest in the messages. At the World Business Summit on Climate Change in Copenhagen in May, Secretary-General of the United Nations, Ban Ki-moon, reminded the more than 700 CEOs and dignitaries of the messages from the IARU congress:

"The science is clear. Global emissions must peak in less than a decade to avert the worst consequences of climate change. Many scientists are saying that worst-case projections are already being realized - indeed surpassed. This was the message from the International Scientific Congress, held here in Copenhagen in March."

Elements of the key messages are also reflected in the business leaders' own key messages from their summit entitled the "Copenhagen Call".

In addition, the six key messages have been presented at a high level briefing at United Nations in New York, at the UNFCCC meeting in Bonn, for local government leaders at their summit in May and for representatives of leading NGOs at a big NGO conference in Copenhagen also held in May. Furthermore, the messages have been presented in Brussels to members of the European Parliament, officials from the EU institutions, NGOs and journalists.

"The interest in the key messages is very encouraging. It shows that there is a genuine will to use the latest research results on climate change, whether it is in policy, planning or business

The University of Copenhagen organised the scientific congress in cooperation with the partners in the International Alliance of Research Universities (IARU):

- Australian National University
- ETH Zurich
- National University of Singapore
- Peking University
- University of California - Berkeley
- University of Cambridge
- University of Copenhagen
- University of Oxford
- The University of Tokyo
- Yale University

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models”, says Katherine Richardson, Chair of the Scientific Steering Committee of the congress.

Further presentations of the key messages and the synthesis report are planned for the fall.

### The University of Copenhagen is onto green

In addition to the scientific congress on climate change a number of other green efforts have taken place at the University of Copenhagen, such as developing the IARU Campus Sustainability Toolkit. The toolkit addresses key aspects of reducing university carbon footprints. It is meant as an inspiration for organisations and others on how to take concrete green actions. The toolkit can be explored at [www.iaruni.org/sustainability](http://www.iaruni.org/sustainability). The University of Copenhagen has itself presented a strategy to reduce energy consumption and CO<sub>2</sub> emissions by 20% between 2006 and 2013 by investing in

energy savings. In March, during a three-week energy saving campaign among employees, the University of Copenhagen managed to lower its heat consumption by 10% and its electricity consumption by 1%. Follow up actions will seek to maintain and further encourage energy friendly habits at the university. The goal is to become one of the greenest campus areas in Europe. “Universities must be front runners. As a leading university we must not only present the many climate friendly solutions for others to take, but we must lead the way”, says Prorektor Lykke Friis.

There are more green efforts at the University of Copenhagen such as building a climate friendly house – the Green Lighthouse. The house uses an innovative energy concept and is a tribute to the sun. Green Lighthouse will be ready in September well ahead of the COP15, and will show how it is possible to build inspiring modern buildings that go hand in hand with the necessary future green construction efforts. Research and studies should take place in modern

facilities that at the same time take into account the climate challenge. Prorektor Lykke Friis says: “Green Lighthouse has been built in less than a year. This shows that if the public and private sector work closely together it is possible to accomplish things in a relatively little amount of time”. The University of Copenhagen is onto the green challenge. Read more about Green Lighthouse and see the partners behind the project at [www.greenlighthouse.ku.dk](http://www.greenlighthouse.ku.dk) and read more about the university’s green efforts at [www.climate.ku.dk](http://www.climate.ku.dk)

### Small changes to key messages – next step is the scientific book

The six key messages presented at the closing session of the IARU international scientific congress on climate change were at the time, preliminary. Since then the writing team has been busy explaining and elaborating on the background for the messages. The synthesis report published

today is the result of that work. Only minor changes have been necessary to make to the final messages from the congress. Chair of the Scientific Steering Committee for the congress, Professor Katherine Richardson explains:

“The kind of review that the key messages and the synthesis report have been through always points out things that needs to be changed, but I am actually very happy with the fact that the key messages in themselves are more or less as we presented them at the congress. It shows that they are resilient and based on a broad scientific consensus”, she says.

Katherine Richardson adds “But we’re certainly not finished yet. After the launch of the synthesis report today, we’ll start work on the scientific book that will reflect even more details from the congress about the scientific evidence that has emerged on climate change”. The book will be published in 2010.

### Key Message 1: Climatic Trends

Recent observations show that greenhouse gas emissions and many aspects of the climate are changing near the upper boundary of the IPCC range of projections. Many key climate indicators are already moving beyond the patterns of natural variability within which contemporary society and economy have developed and thrived. These indicators include global mean surface temperature, sea-level rise, global ocean temperature, Arctic sea ice extent, ocean acidification, and extreme climatic events. With unabated emissions, many trends in climate will likely accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts.

### Key Message 4: Equity Dimensions

Climate change is having, and will have, strongly differential effects on people within and between countries and regions, on this generation and future generations, and on human societies and the natural world. An effective, well-funded adaptation safety net is required for those people least capable of coping with climate change impacts, and equitable mitigation strategies are needed to protect the poor and most vulnerable. Tackling climate change should be seen as integral to the broader goals of enhancing socioeconomic development and equity throughout the world.

### Key Message 2: Social and Environmental Disruption

The research community provides much information to support discussions on “dangerous climate change”. Recent observations show that societies and ecosystems are highly vulnerable to even modest levels of climate change, with poor nations and communities, ecosystem services and biodiversity particularly at risk. Temperature rises above 2°C will be difficult for contemporary societies to cope with, and are likely to cause major societal and environmental disruptions through the rest of the century and beyond.

### Key Message 5: Inaction is Inexcusable

Society already has many tools and approaches – economic, technological, behavioural, and managerial – to deal effectively with the climate change challenge. If these tools are not vigorously and widely implemented, adaptation to the unavoidable climate change and the societal transformation required to decarbonise economies will not be achieved. A wide range of benefits will flow from a concerted effort to achieve effective and rapid adaptation and mitigation. These include job growth in the sustainable energy sector; reductions in the health, social, economic and environmental costs of climate change; and the repair of ecosystems and revitalisation of ecosystem services.

### Key Message 3: Long-term Strategy: Global Targets and Timetables

Rapid, sustained, and effective mitigation based on coordinated global and regional action is required to avoid “dangerous climate change” regardless of how it is defined. Weaker targets for 2020 increase the risk of serious impacts, including the crossing of tipping points, and make the task of meeting 2050 targets more difficult and costly. Setting a credible long-term price for carbon and the adoption of policies that promote energy efficiency and low-carbon technologies are central to effective mitigation.

### Key Message 6: Meeting the Challenge

If the societal transformation required to meet the climate change challenge is to be achieved, then a number of significant constraints must be overcome and critical opportunities seized. These include reducing inertia in social and economic systems; building on a growing public desire for governments to act on climate change; reducing activities that increase greenhouse gas emissions and reduce resilience (e.g. subsidies); and enabling the shifts from ineffective governance and weak institutions to innovative leadership in government, the private sector and civil society. Linking climate change with broader sustainable consumption and production concerns, human rights issues and democratic values is crucial for shifting societies towards more sustainable development pathways.

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