

Mitigating Climate Change: The third part of the IPCC AR5 Climate Report

The Intergovernmental Panel on Climate Change (IPCC) is the world's leading body for the scientific assessment of climate change, established to inform governments in decision-making. The IPCC is best known for its comprehensive Assessment Reports, published about every six years (since 1990). The 5th Assessment Report (AR5) is being released in 2013-2014 in four parts.

State of play

The first part - the [Working Group I \(WGI\)](#) report, approved in September 2013 - reconfirmed that climate change is happening, humans are causing it, and it is rapidly getting worse. It introduced four new IPCC scenarios that reflect different levels of action to cut emissions, resulting in different levels of future warming and impacts. In doing this, it quantified the global "carbon budget," namely the amount of carbon dioxide emissions we can still emit without exceeding the 2 degrees Celsius maximum warming goal governments have agreed to. If emissions continue to grow fast, the remaining budget could be used up in just 20 years. This underlines the importance of turning emissions to rapid decline soon.

The [WGII report](#), released end of March, deals with climate change impacts, vulnerability and adaptation. It found that impacts are already widespread, affecting all continents and the ocean. Climate change will touch everybody, as food security, water availability, livelihoods, health and human security are affected. The poor, the vulnerable and marginalised are most at risk.

The IPCC found a big difference between projections that meet governments' agreed goal of staying below 2°C warming and those that lead to a 4°C warming above pre-industrial levels – a path we are currently on. However, it also found that some impacts are already serious and risks start to worsen after 1.5°C warming. The exact tipping points in the climate system are still unknown, but it is clear that to avoid abrupt and irreversible changes mankind must keep additional warming as low as possible.

What to Expect from WGIII: Mitigation of Climate Change

The third report in the IPCC AR5 series will be finalised in Berlin, Germany in a meeting that starts on the 7th of April and ends with a release of the report on the 13th of April.

The report will outline options for technologies, policies and measures that could bring emissions down to prevent further warming. In addition, it will sum up past and future emissions trends and drivers – in other words, what and who is causing emissions.

The IPCC will not recommend any particular goals or technologies for emissions cuts, nor will it say who should do what, as it is not in their mandate to make recommendations. Instead it will assess the options available at different levels of governance and in different economic sectors and look at their implications for society.

As scientific knowledge improves and more observational information is gathered, the scope of the IPCC reports broadens and deepens. As a consequence, the AR5 WGIII report has improved its treatment of risk, uncertainty and ethical questions as well as overlaps with other societal goals. It includes for the first time a new set of socio-economic mitigation scenarios as well as an integrated cross-sectoral and sectoral assessment of mitigation pathways.

It also looks at the implications of delaying mitigation action and the limited availability of technologies, and assesses investment and finance needs.

The report is expected show that it is still technologically feasible to keep warming below the internationally agreed threshold of 2C° and even 1.5C°. How we do this by making changes to energy production and use as well as in land-use and industry will be outlined, along with the implications – social, political and economic.

Also included will be the consequences of delaying action in terms of reduced technological options and increased risks and costs.

The Current Backdrop

The IPCC report is being launched at a time when governments are negotiating a new global climate agreement. The new report will provide governments with the latest scientific understanding on the scale of the challenge, how fast emission cuts are needed, and what other ethical, technological and economical facts should be considered when negotiating who does what. This makes the report highly relevant for the politics of climate change.

It is no secret that so far governments have failed to react on climate change in an appropriate manner, so the report is expected to make frustrating reading about the lack of success in policies so far.

At the same time, the solutions space in technology is rapidly changing. Since the last Assessment Report in 2007, renewable energy has made a real breakthrough. It is expanding and becoming cheaper faster than expected and - together with energy efficiency measures - is ready to challenge fossil fuels in many corners of the world, even without subsidies. In parallel the inherent risks and costs of the old system of coal, oil, gas and nuclear power have become more apparent. These significant changes in the global energy landscape, and the opportunities they provide, are expected to be reflected in the new IPCC report.

Next steps

At the Ban-Ki Moon summit in September 2014, Heads of States are expected to respond to the recent scientific findings and announce new targets and measures that are urgently needed to reduce emissions. At the next UN Climate Conference in Lima in December 2014 countries are expected to agree on a draft treaty and start tabling new targets for emissions reductions beyond 2020 in preparation for a conference in Paris a year later, in December 2015, where the new climate treaty is to be finalised.

Greenpeace calls on governments to commit to a transition towards 100% renewable energy by mid century and to pledge equitable targets and measures in line with this goal.