

AFD 245 Links and Notes IPCC

- <https://www.vox.com/2018/10/9/17951924/climate-change-global-warming-un-ipcc-report-takeaways>
 - “Getting on course for 1.5°C of warming would require slashing global greenhouse gas emissions 45 percent below 2010 levels by 2030. And greenhouse gas emissions have grown, not fallen, since 2010, so the cut has to be even more drastic now. It’s possible to do this, even with technology as it stands now, but it would require a level of coordinated effort the world has never seen before. It’s also a level of effort no country seems to be willing to endure. All this adds up to a situation with no easy way out. There is no room left for wishful thinking that a perfect solution will emerge without trade-offs, that we’ll dodge any grievous consequences of warming, and that we won’t have to pay for this, either today or decades down the line with interest. Everything we do to mitigate warming will have some benefit, and it’s worth fighting to control every fraction of a degree, but even the best-case scenario involves drastic changes to the world as we know it. And we’re rapidly closing the window to achieve it.”
- - full report: <http://www.ipcc.ch/report/sr15/>
 - Summary for Policymakers: http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf
 - “Climate-related risks for natural and human systems are higher for global warming of 1.5°C than at present, but lower than at 2°C”
 - “D6. Sustainable development supports, and often enables, the fundamental societal and systems transitions and transformations that help limit global warming to 1.5°C. Such changes facilitate the pursuit of climate-resilient development pathways that achieve ambitious mitigation and adaptation in conjunction with poverty eradication and efforts to reduce inequalities (high confidence). {Box 1.1, 1.4.3, Figure 5.1, 5.5.3, Box 5.3}
 - D6.1. Social justice and equity are core aspects of climate-resilient development pathways that aim to limit global warming to 1.5°C as they address challenges and inevitable trade-offs, widen opportunities, and ensure that options, visions, and values are deliberated, between and within countries and communities, without making the poor and disadvantaged worse off (high confidence). {5.5.2, 5.5.3, Box 5.3, Figure 5.1, Figure 5.6, Cross-Chapter Boxes 12 and 13 in Chapter 5}”
 - Headline Statements: http://report.ipcc.ch/sr15/pdf/sr15_headline_statements.pdf
 - “In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO₂ emissions decline by about 45% from 2010 levels by 2030 (40–60% interquartile range), reaching net zero around 2050 (2045–2055 interquartile range). For limiting global warming to below 2°C, CO₂ emissions are projected to decline by about 20% by 2030 in most pathways (10–30% interquartile range) and reach net zero around 2075 (2065–2080 interquartile range). Non-CO₂ emissions in pathways that limit global warming to 1.5°C show deep reductions that are similar to

those in pathways limiting warming to 2°C (high confidence).”

“Pathways limiting global warming to 1.5°C with no or limited overshoot would require rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems (high confidence). These systems transitions are unprecedented in terms of scale, but not necessarily in terms of speed, and imply deep emissions reductions in all sectors, a wide portfolio of mitigation options and a significant upscaling of investments in those options (medium confidence).”

- “B1. Climate models project robust differences in regional climate characteristics between present-day and global warming of 1.5°C, and between 1.5°C and 2°C. These differences include increases in: mean temperature in most land and ocean regions (high confidence), hot extremes in most inhabited regions (high confidence), heavy precipitation in several regions (medium confidence), and the probability of drought and precipitation deficits in some regions (medium confidence).
- B2. By 2100, global mean sea level rise is projected to be around 0.1 metre lower with global warming of 1.5°C compared to 2°C (medium confidence). Sea level will continue to rise well beyond 2100 (high confidence), and the magnitude and rate of this rise depends on future emission pathways. A slower rate of sea level rise enables greater opportunities for adaptation in the human and ecological systems of small islands, low-lying coastal areas and deltas (medium confidence).
- B3. On land, impacts on biodiversity and ecosystems, including species loss and extinction, are projected to be lower at 1.5°C of global warming compared to 2°C. Limiting global warming to 1.5°C compared to 2°C is projected to lower the impacts on terrestrial, freshwater, and coastal ecosystems and to retain more of their services to humans (high confidence).”

<https://www.pbs.org/newshour/show/al-gore-calls-trumps-deregulation-proposals-literally-insane>

<https://www.pbs.org/newshour/show/world-needs-to-make-near-revolutionary-change-to-avoid-imminent-climate-disaster-is-there-hope>

<https://www.pbs.org/newshour/show/florida-resident-surveys-total-devastation-from-hurricane-michael>

- The recent hurricane in Florida
 - <https://www.nationalgeographic.com/environment/2018/10/news-hurricane-michael-florida-explained/>
 - https://www.washingtonpost.com/outlook/2018/10/14/hurricanes-like-michael-show-why-we-cant-ignore-climate-change/?noredirect=on&utm_term=.8b29f7d8b021

As hurricane after hurricane illustrates in a deafening drumbeat of destruction, the most vulnerable populations pay the highest costs during these disasters — sometimes with their lives. Residents of poor neighborhoods, often members of

ethnic and racial minorities, frequently cannot afford flood insurance, even if they live in low-lying, flood-prone areas. Evacuation requires transportation and lodging expenses, while recovery requires access to savings to pay upfront costs. Taxpayers are on the hook for rebuilding in flood-prone areas, even as private insurance companies continually increase premiums for many coastal properties in recognition of the shifting statistics of risk.

- Hurricane/Cyclone Leslie

- <http://time.com/5424214/hurricane-leslie-portugal-coast/>
- <https://www.forbes.com/sites/marshallshepherd/2018/10/12/you-are-not-hallucinating-hurricane-leslie-is-headed-toward-spain-and-africa/#7cf65de04453>