

PLANETARY EMERGENCY CONFIRMED

The IPCC AR5 Report in Context

On the 27th of September, the Intergovernmental Panel on Climate Change (IPCC) will release its “Fifth Assessment Report” (AR5)– a report reviewing climate science and taking five years to compile, it takes a very conservative approach to the latest science.

The report confirms that climate change is real, caused by human emissions of greenhouse gases, and poses a severe and immediate threat to food production, our homes and our communities. It reinforces the need for a global transformation of energy systems to stop greenhouse gas emissions and to avoid the worst and most catastrophic impacts of climate change.

Climate change is happening and is driven by human emissions

The report shows that climate change is real and it is 95% certain that humans caused more than half of the global warming that we have already experienced.

It shows that each of the last three decades (the 1980s, 1990s, and 2000s) has been warmer than all preceding decades since 1850 - and the years 2000-2010 have been the hottest.

On the current projected levels of climate pollution, we have a 50% chance of average temperature rise being above 4C by 2100 – when many scientists say that anything above 1.5C is catastrophic. This is compounded by the fact that warming will be even worse over large ‘land-mass’ such as Africa, Asia and the Americas.

Other important findings in the report include:

- The oceans are acidifying;
- Arctic sea ice retreat has doubled;
- Antarctic and Greenland ice sheets are shrinking;
- Sea-level rise caused by climate change is projected to be higher than initially thought.

A potential crisis for food production

Experienced and projected temperature increases represent a crisis for food production, and will contribute to reductions in crop yields, destruction of fish stocks, spikes in food prices and starvation. Experts predict that on these trends food prices could double by 2030.

The report finds that:

- There is a 66-100% chance that the frequency of heatwaves has increased;
- There is a 66-100% chance that the frequency and severity of heavy storms has increased; and
- It is virtually certain that ocean acidification will increase.

This means that given our knowledge of the impact of heat and storms on crop production, climate change presents a very real threat to food for people everywhere. Similarly, increased ocean acidification risks destroying fish-stocks on which over one billion people rely.

A global energy transformation is necessary

To prevent further temperature rise, or climate change passing tip points and spiraling out of control, the IPCC concludes that **“substantial and sustained reductions of CO2 emissions” are necessary.**

The report proposes an ‘emissions budget’ or a limit of the total amount of greenhouse gases (270 PgC) that humanity can emit for the remainder of this century to limit warming to 2C – this level is much less than the known emissions-content of existing fossil fuel reserves such as coal, oil and gas.

To avoid catastrophic climate change we must find a way to live within the limit of emissions for the century – this will mean **transitioning away from dirty fossil fuels and building local, democratic and community owned renewable energy projects.**