



Scientists Warning Europe
20-22 Wenlock Road,
London,
N1 7GU

14 January 2021

Dear members of the Dorset Climate Action Network,

We felt it was important for Scientists Warning Europe to write in support of the submission being made by your group to Dorset Council.

The scientists of Scientists Warning Europe warn that immediate action must to be taken to achieve net zero emissions of carbon dioxide by 2030 all over the World.

Immediate action needs to be taken now to prevent the planet's natural systems from spiralling out of control as multiple tipping points are reached and passed and to prevent the planet becoming a "Hothouse Earth". The focus for every country and all levels of government should be to reach net zero by 2030. We see this as essential to have a reasonable chance of keeping humanity safe from the danger of a climate that on our current emissions trajectory will soon go out of control.

There is scientific evidence to suggest we will reach 1.5°C warming around or before 2030, irrespective of actions taken in the interim, and a decade ahead of IPCC projections. 2.2°C is likely prior to 2050, even with actions better than the current Paris Agreement commitments, 3°C in the early-to-mid second half of the century and on current emissions trajectory, 5°C possible before 2100.

As can be seen from current extreme weather events the current 1.2°C of warming is already dangerous; 2°C would be extremely dangerous; 3°C catastrophic; and 4°C unliveable for most people. It is possible a "Hothouse Earth", non-linear, irreversible, self-sustaining warming (due to multiple surpassed tipping points) may be triggered between 1.5–2°C. There is even a risk that we have already lost the ability to prevent accelerating warming.

As an example of one tipping point - the Arctic sea ice is dangerously close to disappearing. The Arctic summer sea ice has already melted to the point that over half the sea previously covered with solar-reflecting ice is now devoid of ice. Exposure of the blue sea to summer sun means that the Arctic Circle region as a whole is now heating up at about 3X the rate of the rest of the planet. Planetary warming is accelerated and Greenland ice is already melting rapidly, raising global sea levels faster than before

The scale of the damage that will be caused to the Earth and its ecosystems if we do not act now with emergency speed and level of endeavour is massive. This damage will not necessarily extend to the collapse of civilisation but that existential threat becomes more likely so long as serious action is delayed.

The level of risk posed from runaway climate change imminently accelerating due to passed tipping points is so catastrophic that it should be treated with even greater action and focus than the response to the Covid19 Pandemic.

At present we emit more than 40 gigatons of CO2 equivalent per year, and if we are to reduce these emissions to below net zero then we need to not only cut back the emissions figure significantly, but also add a substantial amount of Greenhouse Gases capture so as to make the total negative and thus start to allow the planet to recover with the aim of restoring the atmosphere to below 350 ppm CO2 equivalent as soon as possible and ideally by 2050.

The only sensible and pragmatic response for all levels of government in the World is to act now on a massive scale to achieve net zero emissions by 2030 in combination with substantial investment into the World's ability to draw down carbon.

We wish Dorset Climate Action Network success in your essential work.

Yours faithfully

Ed Gemmell
Managing Director
On behalf of Scientists Warning Europe
scientistswarningeurope.org.uk