Poor use of science jeopardizes climate lawsuits: research

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Newly-available scientific evidence, which could prove critical to the success of climate-related lawsuits, is often not produced in court, according to a new study published today by the Oxford Sustainable Law

Programme and Environmental Change Institute.

Filling the evidentiary gap in climate litigation in *Nature Climate Change*, a leading interdisciplinary science journal, is the first global study on the use and interpretation of climate-science evidence in lawsuits.

The study reveals evidence submitted by litigants in 73 lawsuits across 14 jurisdictions is significantly behind state-of-the-art climate science, impeding claims that greenhouse-gas emissions have caused the impacts suffered by plaintiffs.

In most cases there was no attempt to quantify the extent to which climate change was responsible for the climate-related events causing the impacts affecting plaintiffs—an important line of evidence since not all events occur due to climate change.

Even fewer cases provided quantitative evidence linking defendants' emissions with the plaintiffs' injuries. Some 73% did not refer to peer-reviewed evidence. And 48% of the cases that focused on extreme weather events claimed that the weather occurred due to climate change, without providing evidence.

From 1986 until May 2020, plaintiffs globally have brought more than 1,500 climate-related lawsuits, with the rate of claims increasing. High-profile cases, such as Native Village of Kivalina v. ExxonMobil Corp, which was dismissed at the US Court of Appeals, have shown that strong evidence of causation is critical to successful litigation.

The study makes clear that cutting-edge, peer-reviewed attribution would allow lawyers to ascertain the prospects of successful litigation before cases reach court.

Lead author, Rupert Stuart-Smith, says, 'In recent weeks, successful

lawsuits in the Netherlands, Germany, and elsewhere have seen courts demand countries and companies dramatically strengthen their climate targets. The power of climate litigation is increasingly clear.

'However, many climate-related lawsuits that rely on evidence on the link between greenhouse gas emissions and climate change impacts have been unsuccessful. If litigation seeking compensation for losses suffered due to climate change is to have the best chance of success, lawyers must make more effective use of scientific evidence. Climate science can answer questions raised by the courts in past cases and overcome hurdles to the success of these lawsuits.'

The study authors call for greater awareness and use of attribution science when bringing climate litigation, 'Effective use of climate-science evidence in the courts could overcome existing obstacles to causality, set legal precedent for demonstrating causality with climate-science evidence, and make successful litigation on climate-change impacts feasible.'

Attribution science has recently been used to prove the impact of man-made climate change on extreme weather events such as Hurricane Harvey.

As well as providing better evidence, attribution science can inform the decision to pursue climate litigation cases, with uncertainties around some types of events (like droughts) being much higher than others (e.g. large scale extreme rainfall).

Dr. Friederike Otto, Associate Director of Oxford's Environmental Change Institute, says, 'In order to change the fate of the vast majority of climate litigation cases, courts and plaintiffs alike have to realise that science has moved on from ascertaining that climate change is potentially dangerous to providing causal evidence linking emissions to

concrete damages.'

Professor Thom Wetzer, Founding Director of the Oxford Sustainable Law Programme, says, 'Holding high-emission companies accountable for their contribution to climate change is key to driving systemic change and to protecting those most vulnerable to climate change impacts. Climate litigation aimed at generating that accountability is on the rise, but the results have been mixed.

'Our research provides reason for optimism: with rigorous use of scientific evidence, litigators have room to be more effective than they currently are. It is now up to litigators to translate state-of-the-art science into high-impact legal arguments.'

More information: Filling the evidentiary gap in climate litigation, *Nature Climate Change* (2021). DOI: 10.1038/s41558-021-01086-7 , www.nature.com/articles/s41558-021-01086-7

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