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Send for the lawyers

Litigation may be the only way to stop climate change

WITH a global economic meltdown on the cards, it is hardly surprising that most people are distracted from thinking about what the climate will be like in a century's time. If we do consider climate change, it is usually about what's happening today. Climate scientists dismiss such concerns as short-sighted, but they are wrong to ignore the public. As Myles Allen of the University of Oxford put it: "These people pay our salaries, we should be testing the hypotheses they care about."

That is why deciding whether or not extreme weather events can be blamed on human emissions is so important. Forget future doomsdays. We need to figure out if we are the cause of the recent inundation of Bangkok in Thailand and the unseasonal US snowstorms, or last year's floods in Pakistan and heatwave in Russia. Only then will the world take climate change seriously (see pages 6 and 30).

Attribution is critical because the urgency of the 2009 climate talks in Copenhagen, Denmark, has evaporated. Russia and Japan have walked away from imposing legally binding targets as government ministers plan to resume the pursuit of a new

global climate agreement later this month in Durban, South Africa. The US administration is impotent. And while last year saw the biggest ever annual surge in global greenhouse gas emissions (see page 5), even Germany is planning to shut down its nuclear power stations. Such knee-jerk responses to the Fukushima nuclear plant disaster in Japan can only raise carbon emissions.

Evidence that links climate change to the deaths of tens of thousands of people and billions

"Just as people with cancer led the charge against big tobacco, so the victims of climate might assail big oil"

of dollars in damage would concentrate minds. But it might be a game changer in other ways. In the absence of a global deal by governments, private litigants may take up cudgels. Just as people with cancer led the charge against tobacco companies, so the victims of climate disasters might assail big oil and big coal, provided their claims rest on sound science.

As long ago as 2005, Allen told *New Scientist* that the legal route would have more impact on

climate change than governments: "Just the possibility of legal action would have a big effect... in boardrooms."

The truth is that we know little about how climate change will pan out – still less how it will influence climate disasters. The Stern Review, published for the UK government in 2006, argued that super-hurricanes, mega heatwaves and the like will cause trillions of dollars in damage annually by 2100.

As one measure of the uncertainties, the review's arch critic, Yale University economist Robert Mendelsohn, now says it will be more like tens of billions of dollars in a study that the World Bank has been dithering about publishing. An Intergovernmental Panel on Climate Change report on extreme climate events due out later this month won't take us much further.

By trying to peer into the future, we are ignoring the here and now. Allen is right. Today is what matters most to people. If, as many suspect, our fingerprints are all over recent climate disasters, then we have a crime scene. But before the lawyers can do their stuff, we have to send for forensics. ■

Darwin trumps self-obsession

THE Terminator, C-3PO and Maria in Fritz Lang's 1927 film *Metropolis*. All are sci-fi visions of the future of robotics, and all are fashioned in our own image – with "brains", legs and hands.

Yet real-world humanoid robots are nowhere near as capable. Indeed, despite remarkable advances across a range of technologies, robotics has begun to acquire the air of a field that has

failed to live up to expectations.

Now the success of a group of rebel roboticists suggests that, by copying our own image, humanoid robots and their creators are destined to fail.

The robots that the rebels envisage look nothing like us, but are inspired by the theory that intelligence emerges from the body (see page 48). It means they are soft, squishy and strange, and

come in all sorts of shapes and sizes. Tasks that leave their awkward humanoid counterparts fumbling and stumbling are a piece of cake for them.

Crucially, the next generation of robots will not be designed as if by gods – in our image – but by using the principles revealed by Darwin. Once again, evolution has dealt a blow to the idea that humans were created special. ■