

## Editorial

### COP26: how much real progress?

The spotlight, pressure and urgency was on COP26 like no previous climate meeting to demonstrate progress and achieve agreements. After the hype, headlines, protests and promises, what has really changed? Few would disagree that more progress had been made at this than any previous COP, but then there can also be little doubt that the commitments made were nowhere near sufficient to take us off a seriously worrying course of entwined climate, environment and societal crises. Many scientists think that if the new agreements are followed then global warming by the end of the century might reach +2.4°C instead of +2.7°C - clearly a substantial shift in the right direction, but far short of what is required. Notable, high-profile announcements were made on ending deforestation (but by 2030), phasing down of coal and removal of 'inefficient' fossil fuel subsidies, and 2030 national targets were requested for just one year later (2022). Many of these progress points began with proposals that, arguably, used harder-hitting terminology, but were later amended under pressure from nations and other bodies with, from their point of view, more to lose. New finance agreements, with some richer nations promising to double contributions to support the climate adaptation of poorer countries, may sound robust, but they can also be seen in a context of previous and similar commitments having not been met, despite expressions of 'deep regrets'.

Given the opportunity to attend as a polar biological scientist speaking on behalf of an environmental charity, I was pleased to see and hear greater emphasis than has previously been apparent on the environment. Over the last few decades, the scientific literature has exploded with evidence highlighting the wide variety, intensity and severity of climate impacts on the natural environment from the tropics to the poles, land to oceans and microbes to megabiota. Yet nature has long been and is a major modifier of climate, not least through drawdown, storage and sequestration of carbon (from the atmospheric greenhouse gas CO<sub>2</sub>). Through multiple and interacting stressors, many carbon sinks have now started to become significant carbon sources, even the largest remaining rainforest. Drawing on a wide literature base, a recent Intergovernmental Panel on Climate Change (IPCC)-Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)-sponsored report urged a more synergistic approach to addressing these climate, nature and societal crises. Very strong emphasis was placed on contributions to be made by (and losses avoided by) the better protection, restoration and management of carbon- and species-rich environments. These provide many, and highly efficient, key ecosystem services (nature's benefits), especially when meaningful protection is targeted on near-intact systems and includes long-term planning. High-profile goals of protection have been set, such as '30by30' (30% protected area by 2030), but the reality is we are far from achieving that on land, the ocean lags far behind the land and the polar latitudes are perhaps the least protected of all. Ocean warming around Antarctica has actually increased some carbon sinks in areas of seasonal sea-ice loss, where ice-shelf collapses have occurred and where fjords are emerging as glaciers retreat. However, these little-recognized but important, mitigating feedbacks on climate, along with other global 'blue carbon' marine habitats (e.g. mangroves, seagrass, salt marshes and macroalgae) and terrestrial sinks, particularly peatlands, can only help if they are properly safeguarded through adequate protection - and their ongoing losses from lower latitudes despite restoration efforts show that we are not doing enough.

For all of the discussion of limiting climate change together and tackling a global problem, there was still much combative and competitive national hunkering down into target-setting and debating what constitutes 'emissions' in reporting. Despite Greta Thunberg's comment that politicians and national representatives had cut 'the blah blah blah', this (rather than action) still seemed much in evidence. Much of our planet (most of the ocean) is beyond national jurisdiction and clearly risks being neglected in a system of nationally determined contributions. Much of the push towards 'carbon net zero' involves offsetting, but we already know that up to 90% of carbon offsetting has little or no real impact, while many assessments avoid the issue of whole-lifetime carbon cost. We must, as individuals and nations, become more honest because we are currently deceiving ourselves, to our own loss. Nature protection is sometimes 'sold' as an offset, even when no obvious threat is being mitigated and hence no additional climate mitigation is being provided. By contrast, potentially important, unprotected carbon sinks may stay low on protection agendas because protecting them does not create new (additional) carbon sequestration that was not there before, and so this does not count towards a nation's emissions reduction targets. With the current urgency of our state of affairs, we cannot accept a situation in which losing intact carbon sinks and attempting to restore others is better rewarded than protection of intact habitat (which is likely to achieve

orders of magnitude greater carbon burial). Positively, Norway has taken just such a step, paying Gabon to keep its deforestation low ([www.climatechangenews.com/2021](http://www.climatechangenews.com/2021)), but this has not always proved successful in the past, not least due to problems of corruption. There is no doubt that climate change will be a very tough nut to crack, and it is such a massive and diverse subject that it is easy to get overwhelmed by the jargon and complexity. However, one important outcome of COP26 was, I think, that we all know we can do more, both individually and in wider society. Personally, I really was pleased to see nature-based solutions finally being taken seriously by so many nations and individuals; it may not be too late, but so far it is too little. We simply have to do better - much better - and I think that this is finally being realized across society, globally.

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