Seeking a fair and sustainable future

A more democratic world, and a world that responds effectively to the challenges of climate change, are common aims of the international community. But are they mutually compatible?

Anna Petherick

Political scientists are often shamelessly normative as academics go. In democracies they are free to investigate and write what they please, as are researchers who study the physical and biological dimensions of climate change. Statistical analyses show that democracy benefits people in manifold ways. Democracies are wealthier than autocracies[1]. And yet independent of per capita income, they score better on both measures of human rights[2] and happiness[3]. Any two democratic states are also famously unlikely to go to war with one another[4].

And so the promotion of democracy has been enshrined in supranational bodies[5]. The United Nations has an electoral assistance division. Democracy is a prerequisite for membership of the European Union. Several countries, among them Kosovo and East Timor, have been directly administered by an international community engaging in democratic regime building within them.

But when political scientists ask whether democracy is conducive to attenuating or adapting to climate change, the answer from both theory and data — however urgent it may seem — is less than certain[6].

The era of climate change consciousness has witnessed a flow and an ebb of democracy. In the early 1990s, democracy's star was ascending apace. The Rio Earth Summit was convened a mere six months after the Soviet Union ceased to exist. Its dissolution thrust democratization on Eastern Europe and Central Asia, creating a burst within a larger trend that is known as democracy's Third Wave[7], and that had been continuing since the 1970s, when dictators fell in Southern Europe and then all over Latin America. Even as the number of electoral democracies levelled off, democratization continued into this century, as aggregate planetary levels of civil and political freedom kept rising.

In recent years, the liberal self-confidence that ensued after the end of the Cold War has been shaken. One in every five democracies that existed in the third wave has now been reversed[8]. Peak democracy came — and went — in 2005. Every year that has passed since then has brought declines in both the proportion of electoral democracies and the average quality of democracy, as measured by a composite index[9] of open political competition, respect for civil liberties, press freedom and so on. Negotiators slogged it out at the Copenhagen Conference of the Parties in 2009, following a year that saw four coups in Africa[10]. Those at the Durban meeting in 2011 chatted optimistically about the recent Arab Spring, perhaps unaware that events in Tahrir Square prompted such a fearful up-tick in repressive strategies by authorities in China, Russia and various Eurasian and African countries, that the net result was a more authoritarian world[9].

Theory at a crossroads

There is little or no evidence that climate change had a hand in the seven consecutive years of global democratic backsliding — although the typically peaceful influence of democracy has been shown to be insufficient to overcome the claimed link[11] between years of warm weather and the onset of civil war in subSaharan Africa. The backsliding trend has been pinned on bad governance[8] (not on bad finances, which the political science literature blamed for earlier regressions). Nonetheless, some researchers argue that climate change will encourage the spread of authoritarianism in the future, as democracy is perceived as failing to handle its effects.

For one thing, democracies are hamstrung by the need for political parties to appeal to voters when the electoral cycle next swings around. "Some parties will always run on a platform of not enacting legislation that is intended to do something about climate change [and is probably economically unattractive]," says Mark Beeson, of Murdoch University in Perth, Australia. "And as the scale and immediacy of the environmental challenge becomes apparent and implacable, restricting people's ability to behave in particular ways through essentially authoritarian rules, at the corporate or individual level — such as China's one-child policy — may make more sense, however normatively unattractive that may be." This argument, combined with authoritarianism's regional historical legacy and the example of China's economic success, has convinced Beeson that dictatorships will return to East Asia[12].

Theory cuts both ways, however. The argument that some political elites have to place greater emphasis on short-term than on long-term planning has been used conversely, to contend that dictators won't establish emissions-cutting laws because their hold on power is characterized by paranoia and precariousness, particularly in the contemporary era. An alternative line of reasoning builds on collective action theory. It maintains that the citizens of democracies are not only more likely to demand action on climate change by virtue of their informational and organizational advantages (their access to a free press, to independent scientific research, plus their freedom to associate), but that the structure of democratic societies makes the provision of public goods easier. This is because the opportunity costs of providing a public good, such as environmental policy, are widely spread in democracies. In autocracies, however, the equivalent opportunity costs are concentrated among a small circle of powerful individuals. And by definition, no one — not even the most impoverished peasant struggling under a brainwashing totalitarian ruler — can be excluded from consuming public goods. The net benefits of environmental policy are thus bigger for the median voter in a democratic country than they are for the median member of the ruling elite in a dictatorship.

In response to conflicting theory, researchers appeal to data. This is a sticky business in this case. For one thing, some of the existing globe-sweeping analyses mainly serve to underscore the importance of methodological detail. For example, Li and Reuveny[13] find that whether their correlation between democracy and national CO_2 emissions over the period 1961–1997 is positive or negative hinges

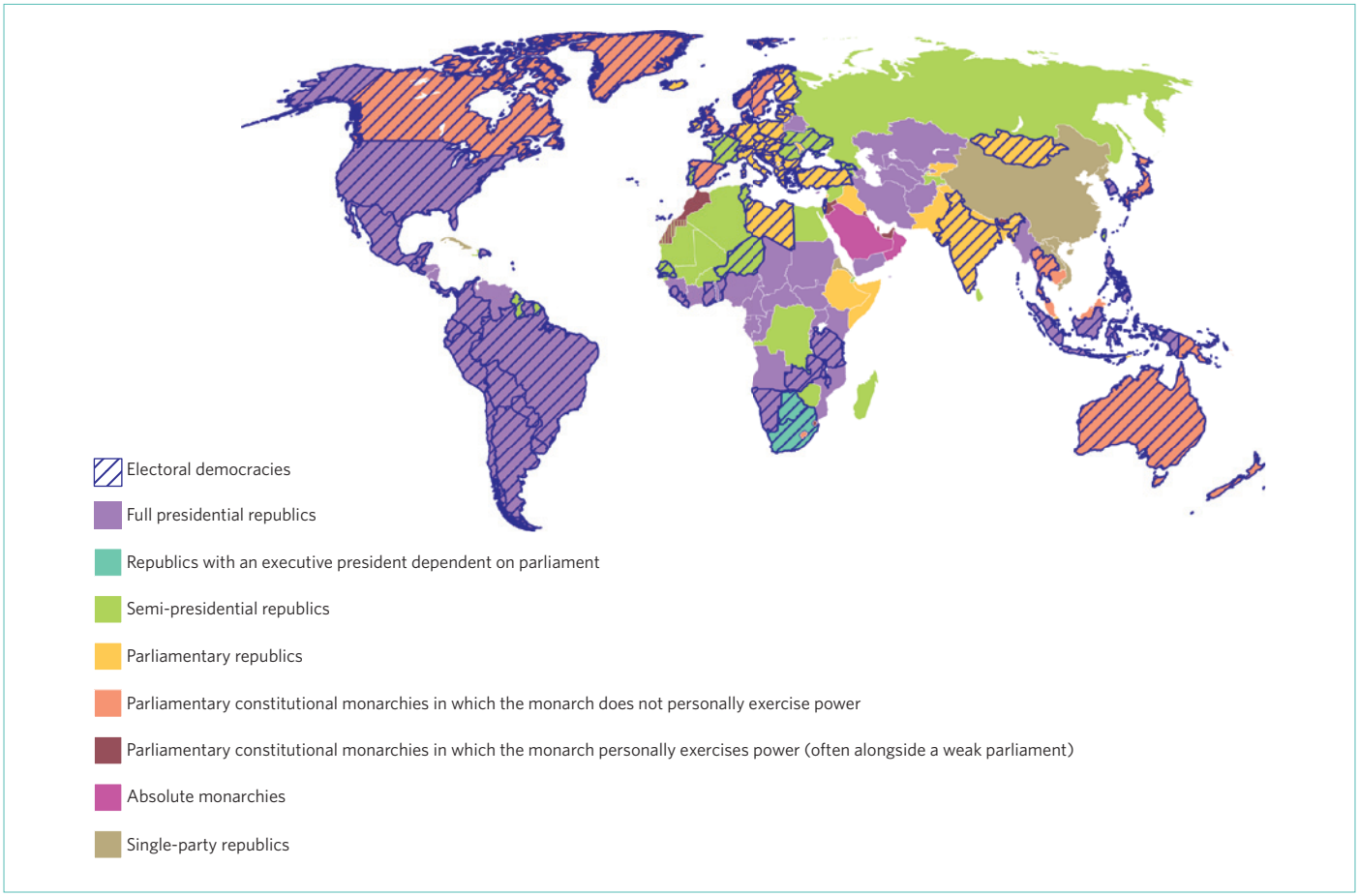

Figure 1 | A political map of the world, with each country's type of government indicated by the colour code. Countries evaluated as electoral democracies in ref. 22 are cross-hatched.

on how democracy is scored: as either a dichotomous or continuous variable. But this is not to say that the field is void of intriguing and relevant conclusions.

Data, institutions and deeds

In a limited sense, the evidence should reassure idealists. Democracy and climate policy formation do tend to go together, although there are occasional studies that suggest ambiguity[14]. But the evidence also suggests that more democracy will not necessarily bring about better practical results from whatever climate laws are enacted or public promises made — at least, not any time soon.

This latter insight came to light in a paper[15] published a decade ago, in which Eric Neumayer of the London School of Economics asked whether democracies show stronger international environmental commitment. He included indicators such as compliance with the reporting requirements under the Convention on International Trade in Endangered Species of Fauna and Flora and participation in environmental intergovernmental organizations. The results were robust whichever measure of democracy was used, and whether or not developing countries were included in the analysis. Neumayer reasoned that democracies were much more likely to sign up to international environmental commitments, but only slightly more likely than non-democracies to actually follow through on them.

Words–deeds gaps, as Thomas Bernauer, a political scientist at ETH Zurich, likes to call them, are also evident when a state's commitment to mitigating climate change is analysed in isolation. Bernauer and his colleague, Michèle Bättig, gathered data from 185 countries during democracy's most recent crescendo, between 1990 and 2004[16]. They found that emissions from the transportation sector were the biggest wedge in the words–deeds gap, and posed a lesser problem for autocratic states. Overall, democracies were indeed more likely to say they would fight the causes of climate change. But their respect for individual freedoms (and probably also their greater wealth) meant that where emissions cuts involved restricting citizens' mobility, the statements of environmentally inclined democratic leaders rang hollow.

The encouraging part of this association — the words part — seems to be driven by certain institutional arrangements over others. Specifically, how electoral systems express voters' preferences and the extent to which different forms of democratic government concentrate or diffuse power explain a decent portion of the general empirical link between democracy and good intentions[17].

Proportional representation has been shown to mean greener representation[18], because parties with a prominent environmental agenda are typically minority parties. Put another way, electoral systems where representatives from different parties are elected in accordance with the percentage of the vote that they each win tend to set stricter environmental policies than majoritarian systems do. This is because parties in proportional systems aim to appeal to all parts of the electorate, including minority green voters, in order to maximize their number of legislative seats. But only the median voters' preferences provide electoral incentive in majoritarian systems.

A similar claim can be made for parliamentary as opposed to presidential democracies (Fig. 1). In a paper published in 2007, Per Fredriksson, an economist at the University of Louisville, Kentucky, and his colleague Jim Wollscheid, of Texas A&M University, reported[19] that presidential systems enact environmental policy so distinctly from parliamentary systems that, by this measure, their behaviour is not significantly different from autocracies. "Even when we excluded the United States from the model, there were no material shifts in the results," Fredriksson points out. His explanation focuses on the greater degree of legislative cohesion found in parliamentary systems: within their sample of democracies with parliaments, they further found that nations in which the government faces an investiture vote (a vote of confidence that must pass before the government can assume office) set even stricter environmental policies.

Patient optimism

There is a caveat to Fredriksson and Wollscheid's conclusions, which unlike much of the other work offers a little hope for climate outcomes. Only when the researchers treated 'partly free' countries — those with mediocre scores for indicators such as the fairness of their elections — as autocracies, did a positive, significant relationship emerge between the presence of democracy and reductions in greenhouse gases per unit of GDP and per capita. So democracy cannot be middling if it is to help the climate. But it can help.

This detail fits two other findings. One is the conclusion that the type of political regime makes no difference to developing countries' greenhouse gas emissions[20]. Among developing countries, many democracies are unconsolidated and 'partial', which may explain this result. The same study also found that developing countries perform better if they are members of intergovernmental organizations, proffering the proposal that expanding inclusion may bypass humps of environmental Kuznets curves — the usual path whereby countries grow rich before they grow clean.

The second finding is the result of a recent collaboration between Fredriksson and Neumayer[21]. They reason that the mechanisms through which the inhabitants of democracies are expected to demand more climate action from their leaders will take time to emerge, and will be contingent on the expectation of future democracy in a policy arena where costs occur in substantial advance of benefits. This introduces the concept that a country has a stock of democratic capital that can be quite different from its current level of democracy. Serbia and Sierra Leone, for instance, may score highly on measures of democracy today, but their limited democratic histories are probably a constraint on the extent to which citizen pressure groups have organized themselves into effectiveness, institutions have matured, and on expectations for democracy in the future.

Fredriksson and Neumayer tested the association between countries' adopted climate mitigation policies as indicated by CLIMI (the Climate Laws, Institutions and Measures Index, which is derived from the 2005–2010 annual national communications to the UNFCCC) and various measures of democratic capital over three periods (1800–2010, 1900–2010 and 1950–2010). They conclude that historical experience with democracy is what promotes climate policy. Present-day quality of democracy becomes irrelevant in their models when democratic capital is accounted for.

This is depressing news for impatient climate change activists. It suggests that the recent shrinking of democracy's global presence is causing an invisible setback for the adoption of mitigation policies. Encouragingly, however, many countries that became democratic during the greatest upturn in democracy, the Third Wave, have been consolidating for decades now. On balance, the message from the data is that the world can realistically expect more political assertiveness on climate change to follow from more democracy. And perhaps eventually, more action. ❐

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NEWS FEATURE:

Clear storeys

Mandatory buildings disclosure in the United States opens the door to improved energy performance. Other countries could follow suit, explains **Elisabeth Jeffries**.

Describing the modern building as "the theatrical demonstration of its functional ideal," the critic Dan Cruickshank in 1989 drew attention to romanticism in twentieth-century architecture. That romanticism has, perhaps, nowhere been better expressed in more recent times than in the green building label.

In New York in 2013, claims suggested that the new Bank of America tower, which had received a platinum rating under the Leadership in Energy and Environmental Design (LEED) buildings rating system, was actually among the poorer-performing skyscrapers. Reports indicated it used more energy per square foot than comparable office buildings in Manhattan.