

# ANTI-FOSSIL FUEL NORMS

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## 1 Introduction

Testing nuclear weapons, permitting slavery, denying voting rights to women, and mining asbestos were all once normal practices — in some cases, for much of human history. Today, robust *global moral norms* socially condition states and their citizens to see these practices as morally wrong, and to regulate them accordingly.<sup>2</sup>

However, the role and potential of international/global moral norms in climate governance has been relatively unexplored by the academic and policy practitioner communities in favour of a focus on formal and highly legalised institutions that seek to achieve emissions reduction goals by directly altering the rational calculus of states through a logic of enforceable incentives.<sup>3</sup> Moral norms are not covered, for example, in the international cooperation chapter of the IPCC's Working Group III (Stavins et al. 2014).

Very recently, this has begun to change. An important catalyst was the successful negotiation of the Paris Agreement, which represents a “new global governance approach” (Falkner 2016, 1108) — one that seeks to achieve climate goals indirectly by establishing weakly legalised (or “soft”) moral norms and processes (Abbott and Snidal 2000) that facilitate the exertion of political pressure on states, including by civil society through a logic of political mobilisation (Falkner 2016; Jacobs 2016).

In parallel, there has been a recent surge in academic and practitioner attention on fossil fuels (Lazarus and Tempest 2014). Some work on fossil fuels has focused primarily on the potential for domestic and international policies and institutions to tackle fossil fuels through a logic of enforceable incentives (Van Asselt 2014; Lazarus et al. 2015; Richter, Mendelevitch, and Jotzo 2015). But just as moral norms and weakly legalised institutions operating through a logic of political mobilisation are now widely thought to be a useful complement, perhaps even a political prerequisite, to more legalised climate action generally, so too are such normative developments likely to be prerequisites for “harder” institutional arrangements for tackling fossil fuels.

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<sup>2</sup> At its most general, a norm can be defined as *a standard of behaviour expected of an agent in a particular situation* (cf. Finnemore and Sikkink 1998, 891; Opp 2015 and references there cited). The focus of this paper is a sub-category of moral norms that we may call global moral norms. I use the word “global” rather than “international” because some of the norms I am interested in can apply to both states and non-state actors (typically the latter will be collective agents, though they may also be individuals). Nonetheless, I will be drawing mostly from the literature on norms in the field of international relations, where the main focus is on norms that affect the conduct of states. I use the term “moral” to single out a subset of international norms: those that originate from concerted attempts by agents who intentionally set out to change standards of international conduct in line with what they perceive to be just or ethical.

<sup>3</sup> Exceptions include Cass (2006) and the recent scholarship on the Paris Agreement and on fossil fuel divestment discussed below. There is neighbouring work on the emergence and content of international *environmental* norms more generally (e.g. Falkner 2012), on international *legal* climate norms (e.g. Bodansky 2010), on the effectiveness of international climate *institutions* (see Stavins et al. 2014).

In this vein, a range of recent conceptual innovations and civil society actions have sought to problematize and delegitimise fossil fuels (generally), particular fossil fuels (especially coal and unconventional oil and gas) and/or particular activities in fossil fuel supply chains (especially investment, production and large-scale consumption, e.g. in coal-fired power stations). Some of these developments have, in turn, sparked scholarly attention on these novel forms of climate governance, broadly construed. These developments include: the concept of “unburnable carbon” (Carbon Tracker Initiative 2011; Griffin et al. 2015; McGlade and Ekins 2015) and associated civil society actions targeting the exploration for and development of new fossil fuel deposits and related infrastructure (Bradshaw 2015; Denniss 2015; Hodges and Stocking 2016); the concept of fossil fuel divestment and initiatives aimed at persuading (or shaming) major institutional investors to divest from fossil fuels (Ansar, Caldecott, and Tilbury 2013; Apfel 2015; Ayling and Gunningham 2015; Grady-Benson and Sarathy 2015; Kiyar and Wittneben 2015; Linnenluecke et al. 2015; Tollefson 2015); and a new proposal for a system of Fossil Fuel Free Zones (Green 2016, forthcoming). These innovations and actions can be viewed more generally, I claim, as concerted efforts to establish “anti-fossil fuel norms” (AFFNs). It is these norms that are the focus of this article (shaded area in Figure 1).

**Figure 1: A partial typology of fossil fuel and climate change interventions**

	<b>Fossil fuels</b>	<b>Climate change / GHGs</b>
<b>Informal or weakly legalised moral norms</b> (logic of political mobilisation)	<b>Anti-fossil fuel norms</b> E.g. “leave it in the ground”; investment/divestment norms; Fossil Fuel Free Zones	<b>Climate change norms</b> E.g. net-zero global emissions
<b>Highly legalised norms</b> (logic of enforceable incentives)	<b>Anti-fossil fuel policies</b> E.g. Bans on (new) fossil fuel production; (tradeable) quotas on fossil fuel production; Removal/reduction of fossil fuel subsidies; taxation of fossil fuel production activities	<b>Climate change policies</b> E.g. binding international climate targets and international emissions trading; domestic carbon pricing; mandatory energy efficiency policies

The article argues that anti-fossil fuel norms, especially anti-coal norms, are likely to be a valuable and effective tool of climate governance that merit the serious attention of civil society, policymakers and scholars. The argument proceeds as follows. Part 2 explains that international climate governance is moving away from (failed) attempts to establish highly legalised regimes based on a logic of enforceable incentives and toward weakly legalised regimes of moral norms based on a logic of political mobilisation, but that more effective moral norms are in urgent need of development. Part 3 argues that anti-fossil fuel norms are likely to be effective tools of climate governance because: norm entrepreneurs acting through civil society networks are well placed to *originate* them; they are conducive to widespread *adoption* by civil society and, ultimately, states; and they are likely to have significant positive feedback effects, including because compliance is relatively easy to monitor and verify, paving the way for more legalised anti-fossil fuel norms/policies. This part draws on multidisciplinary theoretical insights into moral norms and on some early practical examples concerning fossil fuel divestment, actions and policies targeting new fossil fuel projects and infrastructure, and Fossil Fuel Free Zones. Part 4 concludes.

## 2 The normative turn in global climate governance

### ***The first two decades: attempts at enforceable incentives in international climate policy***

International climate policy during the two decades up to around 2011 was dominated by a policy paradigm in which states bargained over the establishment of international regimes consisting of enforceable incentives to reduce GHG emissions (Bulkeley et al. 2014). Such incentives were widely believed to be necessary to force states to reduce the emission of GHGs in their jurisdictions. For such incentives to work, a high degree of “legalisation” (Abbott et al. 2000) would have been required (e.g. specific, quantifiable, binding targets and enforcement mechanisms).<sup>4</sup>

However, the international climate agreements, policies and negotiating agenda of this period, which were *modelled* on that paradigm, were simply ineffective with respect to the outcome that mattered most: reducing GHG emissions (Stavins et al. 2014).<sup>5</sup> This was hardly surprising, since two necessary conditions for the establishment and implementation of an international climate regime that is both highly legalised and sufficiently ambitious were lacking: political forces were (and remain) uncondusive to the establishment of such a regime (Falkner 2016); and the governance capabilities available at the supra-national level were (and remain) poorly suited to the effective implementation of such a regime (Dai 2010; Kuch 2015). On the contrary: states themselves (or at least some of them), within their domestic jurisdictions, are the only actors with the legitimate authority and bureaucratic capacity necessary to implement successfully incentives to force private agents (who are, for the most part, the proximate sources of GHG emissions) to change their behaviour;<sup>6</sup> and thorough-going political change is a pre-requisite to the adoption of effective domestic climate policies in most major emitting states.

### ***The last five years: the Paris Agreement and the turn to political mobilisation***

Increasing numbers of players came to recognise that the domestic sphere is the fundamental locus of political contestation, legitimate authority and legal power and to accept the virtues of working with the grain of (limited) political and administrative possibilities at the international level, rather than to try to “fix” climate change using international law (Falkner 2016, 1118–20). As Dai puts it, “[t]he climate change regime should be designed not as a huge pile of papers, but rather as an international vehicle to induce domestic change” (Dai 2010, 634).

Accordingly, over the last few years, the old paradigm has given way to a new paradigm based on a logic of political mobilisation, crystallised in the Paris Agreement (cf. Falkner 2016; Jacobs 2016). In terms of process, the Paris negotiations succeeded in getting an agreement primarily because: (i) civil society (not just NGOs and scientists, which had been a mainstay of past negotiations, but also business groups, the economics establishment and others) organised effectively to pressure states toward agreement on a common set of goals and commitments (Jacobs 2016); and (ii) any aspiration toward a highly legalised and highly ambitious agreement was jettisoned by the key players early on,

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<sup>4</sup> An even higher degree of legalisation required to establish market mechanisms for trading emissions rights, which were key to the efficiency objectives of such regimes.

<sup>5</sup> In fact, what matters most in the near term is inducing the *structural economic change* necessary for long-term, global greenhouse gas emissions reductions; the instruments of this era were even less effective in this regard.

<sup>6</sup> Complex “market” mechanisms, such as emissions trading schemes, challenge the bureaucratic capacity of even the most advanced states, since they require such immense legal underpinning and organisational oversight (Kuch 2015; van Zeben 2014).

which made negotiating and signing-on to the agreement politically feasible for the key governments (Christoff 2016; Falkner 2016; Green 2014).

In terms of form and content, the agreement is, indeed, weakly legalised. It lacks specific “obligations of result” with respect to climate mitigation and also lacks punitive enforcement mechanisms (Bodansky 2016; Falkner 2016, 1117–18). Moreover, the aggregate emissions reduction commitments of participating states are not particularly ambitious (Boyd, Stern, and Ward 2015; Climate Action Tracker 2015). Instead, the key features of the Agreement relating to climate mitigation (Christoff 2016; Falkner 2016) are a (non-binding) shared goal to achieve “a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century” (known informally as the ‘net-zero emissions goal’), a schedule of countries’ voluntary national “contributions” toward meeting that goal, and a commitment to a five-yearly process of review-and-ratchet, whereby progress toward the goal will be reviewed and countries are expected to increase the ambition of their national contributions (Paris Agreement arts. 4, 14).

These features of the agreement facilitate domestic policy change through political mobilisation in various ways. First, the net-zero emissions goal is intended to instantiate a norm that is both *morally compelling* and *clear and simple*, and therefore psychologically salient<sup>7</sup> to both non-specialist elites such as financial investors and the wider public, and to create a focal point around which campaigners can organise (Jacobs 2016). Indeed, the inclusion of that goal in the agreement was the product of an orchestrated civil society campaign, spearheaded by the legal academic Farhana Yamin and her organisational platform Track Zero, with precisely this causal logic in mind (Jacobs 2016).<sup>8</sup> The final formulation of the net-zero goal in the Agreement involved watered-down language and a less specific timeframe than its proponents had sought (Christoff 2016, 776–77; Falkner 2016, 1115). Nonetheless, “net-zero” is now a widely understood concept, at least among climate policy elites, and is legitimised by a formal anchor in the Paris Agreement (Jacobs 2016).

Second, the review-and-ratchet mechanism provides regular, five-yearly “global moments” at which governments will be held by civil society (and, perhaps, by their state peers) to account for their past performance and future ambitions (Jacobs 2016, 323). In this way, the Agreement “guarantees that governments will come under huge pressure to strengthen their targets on a regular basis” (Jacobs 2016, 315).

Accordingly, the Paris Agreement provides a valuable, moral-normative foundation for expanded political mobilisation toward climate mitigation. However, the norms embodied in the agreement do have limitations from a political mobilisation perspective: the ‘net-zero’ goal is still couched in terms of greenhouse gases (GHGs) in general, which are a non-salient source of harm for most of the lay public in industrialised states; it is an aggregate global goal; and the timeframe for its achievement is very long term (and under-specified). While these features to some extent befit an overarching goal in a near-universal multilateral climate treaty, there is, nonetheless, an urgent need to decompose that norm into progressively more concrete, local, and near-term norms.

### **3 Anti-fossil fuel norms: the next frontier**

Given that net zero emissions is now the key international climate mitigation objective, and political mobilisation is now the primary mechanism by which to achieve it at the international level, the

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<sup>7</sup> The theory behind the psychological salience of norms is discussed in Part 3, below.

<sup>8</sup> Indeed, this campaign was a textbook case of international moral norm entrepreneurship, at least in the sense that it fits the theory of norm emergence and consolidation outlined in Part 3, below.

concerted development of AFFNs has a certain *prima facie* logic within the new paradigm of global climate governance. This part of the article argues, further, that AFFNs — with a prioritisation of anti-coal norms — are likely to be an effective tool of climate governance.

The case for phasing out fossil fuels generally — because of their climate implications, other direct negative impacts / externalised costs, and the systemic effects of fossil fuel dependence on economic development and good governance — has been explained elsewhere in this special issue, as has the especially strong case for prioritising the phase out of thermal coal (see generally Lazarus and Tempest 2014 and references there cited). This makes fossil fuels an obvious object of focus in the climate community, including for those examining policies that rely on a logic of enforceable incentives at the domestic or international level. The focus of the below analysis is therefore on the more specific reasons why (global) moral *norms* concerning the elimination of fossil fuels, and especially coal, are likely to originate, become widely adopted, and effect change.

### ***How global moral norms originate: civil society agents as anti-fossil fuel norm entrepreneurs***

The main means by which global moral norms originate is through “norm entrepreneurs” (often individuals or NGOs who are highly motivated by a perceived injustice/problem) who work through an “organisational platform” (such as an NGO network) to have a new standard of behaviour normalised in the international system (Finnemore and Sikkink 1998, 895–901). Since the existing (unjust/problematic) practice will by definition be “normal” and subject to its own “logic of appropriateness” (March and Olsen 1996), around which various interests have been built, norm entrepreneurs must challenge those existing logics and interests using creative tactics (Finnemore and Sikkink 1998, 897).

AFFNs are highly likely to continue to proliferate because (i) a significant force of norm entrepreneurs in the form of individuals and NGOs is deeply convinced of the profound problems and injustices caused by fossil fuels, is highly motivated to prioritise fossil fuels in its campaigning, and is organising and mobilising accordingly (e.g. Klein 2014; McKibben 2012); (ii) these norm entrepreneurs are highly globally networked and media savvy (Ayling and Gunningham 2015; Hodges and Stocking 2016; Katz-Kimchi and Manosevitch 2015); and (iii) many of their actions and objectives are being increasingly endorsed by other, more mainstream elites and organisations (Ayling and Gunningham 2015). Further empirical support for these propositions is identified in the rapid emergence and early successes of the fossil fuel divestment movement, discussed in the next section.

### ***Why norms are adopted: anti-fossil fuel norm salience, institutionalisation, tipping and cascades***

Norm origination depends on the motivation and capabilities of norm entrepreneurs and the strength of their organisational platforms. But not all norms are ultimately adopted by a sufficiently large or influential group of target actors that they lodge in the normative landscape. Ultimately, the target actors of international moral norms are states, and AFFNs are no exception: tackling climate change will require AFFNs to be adopted by states and institutionalised in international and domestic policies and laws. Scholars of international/global moral norms have argued that a common route to widespread moral norm adoption by states is as follows: (i) the emergent norm (through the advocacy of norm entrepreneurs) inspires and mobilises sufficiently large cohorts of *domestic* civil society actors within a sufficient number of sufficiently important states that (ii) an international tipping point occurs and a large number of states adopt the norm in rapid succession (a “cascade”) (Finnemore and Sikkink 1998). Let us consider these two stages in turn.

(i) *Inspiring and mobilising domestic polities*

Moral norms inspire and mobilise domestic actors to put pressure on their governments by their content and the way the content is framed by norm entrepreneurs (Finnemore and Sikkink 1998; Gauri 2015).<sup>9</sup> Specifically, a global moral norm is more likely to be adopted if its content and the way in which it is framed are psychologically salient (Gauri 2015). A global moral norm is more likely to be psychologically salient if:

- it expresses *basic, universal, liberal moral values*, i.e. those values that have a strong claim to transcending particular cultural or political contexts (Boli and Thomas 1997; Meyer, Boli, and Thomas 1987), and if it draws on “the mobilizing power of concepts such as rights, liberties, and equality” (Gauri 2015, 15; see also Keck and Sikkink 1998);
- it is *clear and simple*, and expressed with *easily understandable language*, including only very simple facts or numbers if necessary (Gauri 2015, 9–12; Kahneman 2012, 63–64);
- it is embedded in a (simple) *causal narrative* (Gauri 2015, 13; Kahneman 2012, 199).

Since they combine these features, norms that command agents to *stop doing harm* to a *vulnerable or innocent group* — especially where the harm is to bodily integrity and the causal chain between cause and effect is short — are especially psychologically salient (Gauri 2015, 13–15).

AFFNs have the potential to be much more psychologically salient than existing climate change norms. First, AFFNs are readily amenable to clear and simple framing. Fossil fuels, especially when disaggregated (e.g. “coal”) are *tangible* commodities that are *readily understood* by lay audiences, whereas concepts such as GHGs, 2°C average warming, and “5% below 1990 levels by 2012” are abstract, technical constructions not readily graspable by a lay public (Gauri 2015, 11).

Second, the fact that fossil fuel-related activities cause a range of negative impacts beyond climate change (such as local environmental and health damage), many of which are experienced on short time horizons and by local populations, shortens and localises the causal chain between “act” and “harm to innocents”. Accordingly, using a fossil fuel frame is likely to be more morally compelling than a climate frame — all the more so because one doesn’t necessarily have to accept or understand the science of climate change or prioritise climate change as an issue (sadly many still do not) for the frame to resonate.

Third, AFFNs may strengthen the causal story associated with climate change at the “cause” end of the cause-effect relationship. Harvard psychologist Daniel Gilbert has argued that one of the reasons that climate change is not psychologically salient is that it is (commonly framed as) an abstract, technical problem caused by billions of people; it (so framed) lacks an identifiable causal agent intending the kind of wrong-doing that clearly violates our moral intuitions (Gilbert, quoted in Kateman 2012). AFFNs, by contrast, help to concentrate moral pressure on the largest culprits of climate change (Collier and Venables 2015) — remembering that just 90 companies have produced nearly two-thirds of cumulative historical global GHG emissions (Heede 2014). The same can be said of countries with respect to emissions in their jurisdiction (Collier and Venables 2015). For example, when the focus is climate change in general, fossil fuel exporting countries can appeal to the international emissions accounting regime as a pretext for avoiding responsibility for the emissions that result when their exported fuels are burned elsewhere (Lazarus and Erickson 2013); a fossil

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<sup>9</sup> It should be noted that the *messenger* and the *context* also matter: messages delivered by sources trusted by the target audience, and in an authoritative forum or context relevant to that audience, are more likely to be adopted (Graber 2004, 555).

fuels frame, by contrast, puts both the burning of fossil fuels *and the “supply side”* squarely in focus (Lazarus et al. 2015; Lazarus and Tempest 2014; Morgan 2016).

Whatever the reasons, norm entrepreneurs have in fact shown themselves capable of framing the problem of fossil fuels in ways that resonate with the wider public, combining strong moral messaging with stunts and acts of civil disobedience to challenge the “logics of appropriateness” surrounding fossil fuels. For example, the divestment movement has used creative tactics to pressure institutional investors to divest from fossil fuel stocks in order to stigmatise fossil fuel companies with a view to changing public and elite attitudes toward fossil fuels and climate change (Ayling and Gunningham 2015; Gitlin 2016; Grady-Benson and Sarathy 2015). According to a scholarly review of the movement’s early initiatives, it “has generated considerable interest and, within a relatively short period, has had an impressive impact on both the level and content of public discourse about climate change mitigation” (Ayling and Gunningham 2015, 1). Civil society actions targeting fossil fuel projects/infrastructure have also shown the power of AFFNs to unite disparate interest groups, and a broad cross-section of the wider public, in support of their objectives (e.g., with respect to the Keystone XL pipeline, see Bradshaw 2015; Gravelle and Lachapelle 2015). While not all such campaigns/actions are successful in their *ultimate* aim of stopping the target project, they often achieve valuable tactical victories that have “positive feedback effects” (discussed further below), for example by building diverse alliances, and by denying the proponents of those projects the legitimacy that comes from being able to claim they represent a broad cross-section of society.

#### *(ii) Adoption by states and the role of institutionalisation/legalisation*

As more states, and more influential states, are pressured to endorse/adopt moral norms, the adoption mechanisms gravitate from domestic pressure within countries to a process of “international socialization” by which adopting states, alongside the norm entrepreneurs, “induce norm breakers to become norm followers” (Finnemore and Sikkink 1998, 902). At this stage in the life cycle of moral norms, states typically sign on to the norm because of “a combination of pressure for conformity, desire to enhance international legitimation, and the desire of state leaders to enhance their self-esteem” (Finnemore and Sikkink 1998, 895).<sup>10</sup> Eventually, if a “critical mass” of states adopt the norm, a tipping point will be reached, causing a “cascade” whereby a large number of others adopt it in rapid succession (Finnemore and Sikkink 1998). What the “critical mass” is on a given issue varies from issue to issue, but Finnemore and Sikkink (1998, 901) hypothesise that tipping will not occur before roughly one-third of states in the international system and certain “critical states” (in virtue of their relevance to the issue or their moral stature) adopt it. The institutionalisation or legalisation of the norm in an international regime, following a process of inter-state bargaining, can facilitate the adoption by a critical mass of states (though institutionalisation may also come after a cascade occurs) (Finnemore and Sikkink 1998, 900).

We are, clearly, some way from seeing the widespread adoption of AFFNs by states and the institutionalisation of such norms in international regimes (Van Asselt 2014). This is unsurprising given the political-economic power that fossil fuel and allied producers can apply to national governments directly (Bailey and Compston 2012; Compston and Bailey 2008; Faber 2008; Oreskes and Conway 2010; Pearse 2007), the path-dependence and “lock-in” of existing fossil fuel-based energy systems (Erickson et al. 2015; Erickson, Lazarus, and Tempest 2015; Unruh 2000), and the extent of “carbon entanglement” in most countries (Gurría 2013, 2015), which makes politicians

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<sup>10</sup> Various contextual factors can influence states’ adoption of norms (Crawford 2002; Finnemore and Sikkink 1998, 901; Gauri 2015, 15–16).

reluctant to endorse, let alone implement, measures that would raise fossil fuel and electricity prices.

Two points can be made in defence of the claimed potential for AFFNs to become widely adopted by states in this challenging context. First, the above-mentioned barriers afflict *all* serious climate policies in the sectors where fossil fuels are involved. If the world is to tackle climate change successfully, these political-economy challenges must somehow be overcome, using one strategy or another. The case being made is that conscious efforts to build AFFNs are likely to be valuable, and quite possibly *necessary*, components of any such strategy precisely because they are able to mobilise political constituencies that can counterweight the political power of the fossil fuel industry, and to challenge the “logics of appropriateness” that legitimise the current extent of fossil fuel entanglement — or at least that they are able to do so better than enforceable-incentive and political-mobilisation strategies that focus on climate change / GHG emissions *per se*.

Second, even relatively early in the “normative turn” toward fossil fuels, there have been numerous examples of the endorsement, adoption and institutionalisation by states of policies directly targeting coal, including:

- Following a diplomatic campaign by the Obama administration, the 34 member states of the OECD agreed to end state subsidies for financing the export of technologies to build coal-fired power plants,<sup>11</sup> building on equivalent policies already adopted by the US Import-Export Bank, the World Bank, and the European Investment Bank (Sink and Nussbaum 2015);
- Following pressure from divestment campaigners, the Norwegian Parliament voted to require Norway’s sovereign wealth fund to divest from coal companies (defined as companies that generate more than 30% of their revenue from coal) (Carrington 2015);
- Pacific Island states, led by former President Tong of Kiribati and supported by prominent global economists, scientists and policymakers,<sup>12</sup> have been calling for specific measures to tackle coal supply and use, including an international moratorium on new coal mines (PIDF Secretariat 2015, art. 19(g)). In furtherance of this call, the leaders of 14 Pacific Island countries agreed in July 2016 to consider a proposed Pacific Climate Treaty, which would ban new coal mines, the expansion of existing coalmines, and the provision of fossil fuel production and consumption subsidies (Slezak 2016);
- In 2016, the United States imposed a three-year moratorium on the allocation of new coal mining leases on federal land and the Chinese central government also imposed three-year moratoria on new coal mines and coal-fired power stations.

These actions suggest that we are in fact already starting to see the emergence of an anti-coal norm in the international community.

### ***How norms cause change: positive feedback, political mobilisation and reciprocal implementation***

Assuming that AFFNs become widely adopted, institutionalised and legalised at the international level, there is a further question of how such norms effect meaningful climate change mitigation if they are only “soft” or “weakly legalised” norms (as I assume they will be, at least in the near term).

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<sup>11</sup> An exception was made for so-called “ultra super critical” plants, but the OECD ban was estimated by the Obama administration to cover about 85% of coal power plants (Sink and Nussbaum 2015).

<sup>12</sup> The letter sent by then-President Tong in late 2015 to world leaders requesting support for a global moratorium on new coal mines is available from <http://www.nonewcoalmines.org.au/>, as are links to supporting statements by high-profile individuals.



Central to understanding the potential influence of AFFNs is the notion of *feedback effects*, which can be defined as the effect a normative intervention has on relevant political variables, such as institutions, interests, power relations, capabilities, identities and ideas (cf. “policy feedbacks”, discussed in Jordan and Matt 2014; Lockwood 2013, 2014, Patashnik 2003, 2008; Pierson 1993; Skocpol 1992; Urpelainen 2013). Weakly legalised global norms are reliant on states implementing them “voluntarily”, the likelihood of which increases with pressure from civil society and from other states (Dai 2010). It is important, therefore, to understand how AFFNs could have feedback effects that increase the political leverage that other actors have to exert such pressure.

With respect to non-state actors, soft norms can provide a focal point around which civil society actors can mobilise and which legitimises their claims (Auld, Renckens and Cashore 2015; Dai 2010). We have already discussed the mobilising potential of AFFNs, which can be classified as positive feedback effects.

For both state and non-state actors, norms also provide a standard against which they evaluate, and exert political pressure on, non-compliant states. In this regard, the implementation of norms is likely to be influenced by the ease which norm-compliance can be monitored and verified by third parties, since third party monitoring reduces the possibility for compliance to be “gamed” and responsibilities to be shirked (Bell et al. 2012).

With regard to such monitoring and verification, AFFNs have major advantages relative to policies and norms that apply to GHGs *per se* (Collier and Venables 2015): fossil fuels are tangible commodities, not colourless, odourless gases; there are relatively few fossil fuel suppliers and production installations in any country (far fewer than GHG emissions point sources)<sup>13</sup> and those installations are easily identifiable from the air;<sup>14</sup> and most countries already have systems in place to measure and report on fossil fuel production (e.g. for the purpose of economic production statistics, monitoring compliance with licensing conditions, applying existing production-based taxes, and/or administering existing environmental programs).

Norms that are routinely complied with are, in turn, more likely to inspire the kind of mutual trust and confidence among other participating agents (here, states) that leads to reciprocal compliance (Ostrom 1999, 2010), in turn inspiring confidence in the feasibility of stronger measures (Bell et al. 2012). The ease with which international climate policies/norms relating to GHGs have been gamed with accounting tricks (Kuch 2015, chap. 4 and 5) has bred a lack of trust and confidence among countries and from civil society. By contrast, the ease with which countries and other powerful actors can be held to account with respect to AFFNs means the latter have great potential to be sustained and to trigger positive feedbacks in compliance and in progressively more demanding norms/policies.

This latter set of considerations is central to the logic of the proposal for a normative system of Fossil Fuel Free Zones (FFFZs), drawing on the success of Nuclear Weapons Free Zones (Green 2016, forthcoming). The idea, briefly, is that norm entrepreneurs, starting at sub-national levels, would

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<sup>13</sup> This applies more to the supply side of fossil fuels, though the demand side can also be targeted at relatively few consumption points through power stations, large industrial users, and fuel distribution networks.

<sup>14</sup> Insofar as fossil fuel norms include restrictions on fossil fuel *projects* (e.g. bans on new coal mines), third-party monitoring would be even easier because of the scale of a typical fossil fuel operation and the fact that they always have a visible surface footprint. It would be hard, for example, for a country to pursue a clandestine open cut coal mining programme. The footprint of open cut and mountaintop coal mining is especially large, but even subterranean production processes such as underground coalmining and petroleum extraction projects leave significant surface footprints.

develop and declare geographic zones characterised by the absence of particular actions related to particular fossil fuels, working toward the ultimate status of a declared “Fossil Fuel Free Zone”. For example, a “Coal Supply Free Zone” could prohibit and guarantee the absence of coal exploration and mining/production activities, but not necessarily its transportation, intermediate production and consumption, whereas a “Coal Free Zone” would prohibit all such activities.

This system of FFFZs exploits the ease with which fossil fuel activities, especially on the supply side, can be monitored and reported on by civil society and by third states. Moreover, the fact that this proposed system effectively embeds more feasible norms within a larger system of more encompassing, harder-to-achieve norms facilitates positive feedback effects between policies and norms at different levels of generality; just as nuclear weapons free zones both further non-proliferation objectives directly and further disarmament objectives indirectly (Thakur 1998), an anti-coal supply norm is likely to strengthen an anti-coal consumption norm, and hence an anti-coal norm, and so on. This “nesting” logic also holds the potential for positive feedbacks along a spatial dimension: achieving a particular zonal status in one region provides inspiration, ideas, practical information, and evidence for norm-entrepreneurs in other regions to emulate, whilst also focusing moral pressure on similarly-situated agents elsewhere who are lagging behind (cf. Collier and Venables 2015).

## **5 Conclusion**

This article has sought to draw attention to, and explain the logic of, an emerging and promising phenomenon in global climate governance: anti-fossil fuel norms. It explained that efforts to instantiate such norms cohere with the logic of “political mobilisation” at the heart of the Paris Agreement. It also argued, drawing on theory and recent evidence, that AFFNs are likely to be effective tools in the armoury of climate governance because: there exists a significant force of motivated and capable “norm entrepreneurs” to originate and advocate for them; they have properties that make them likely to be widely adopted by civil society and ultimately by a sufficient number of states to trigger a cascade of acceptance; and they are likely to have a range of positive feedback effects. Accordingly, AFFNs merit the serious attention of civil society, policymakers and scholars. Three directions for future practice and research are suggested.

First, designers and evaluators of climate policies, norm entrepreneurs and other civil society actors at all levels should take seriously the normative dimension of proposed policies and interventions, including the potential for normative feedback effects (positive and negative).

Second, more work is needed to understand and evaluate the potential and limits of AFFNs generally and of specific AFFNs. This article has focused on the potential of AFFNs generally. Three potential generic kinds of limitations that merit further exploration include: the possible limits of normative interventions that work on a logic of political mobilisation in countries where the political space for action by civil society/NGOs is narrow (Falkner 2016, 1123); the possible negative economic feedback effects of successful AFFNs, such as price effects, substitution effects and the “green paradox” (Sinn 2008, 2012), which may often work in the opposite direction to positive normative feedback effects (Collier and Venables 2015); and the risk that normative interventions to stigmatise fossil fuels alienate some of the constituencies (e.g. workers, unions, communities in fossil fuel dependent regions) that will need to be brought onside in the interests of effective and just transitions away from fossil fuels. Ultimately, care will need to be taken to tailor country-specific strategies, to mitigate negative economic feedback effects, and to distinguish fossil fuels and the powerful actors that perpetuate them from the workers, consumers and communities “entangled” with them.

Third, “norms” and “politics” — considered here — are but two of a set of phenomena relevant to the decarbonisation of the global economy that exhibit *complex dynamics* (tipping points, cascades, path dependence etc.). Technological, financial and economic systems also exhibit these kinds of features, and the study of the latter has recently become a serious object of attention among mainstream economists working in this area (e.g. Acemoglu et al. 2012; Aghion et al. 2014; Farmer et al. 2015; Heal and Kunreuther 2012; Stern 2015). Future multi- and inter-disciplinary work on the dynamics of decarbonisation should seek to better understand the potential interactions between complex normative, political, technological, financial and economic dynamics. For example, the availability of low-cost solar PV and wind power has enabled anti-coal campaigns to point to economically affordable — often superior — energy alternatives. Better understanding the interactions between these dynamics will be crucial to the design of policies and other interventions that maximise the overall potential for positive feedback effects — effects that the international community has little luxury to ignore given the size of the decarbonisation challenge.

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