

# NEGOTIATING CLIMATE CHANGE IN CRISIS

EDITED BY STEFFEN BÖHM  
AND SIAN SULLIVAN



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# 3. On Climate Change Ontologies and the Spirit(s) of Oil

*Sian Sullivan*

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The last major UNFCCC COP Agreement—the so-called Paris Agreement of COP21 in 2015—emphasised international cooperation through market-based instruments. International carbon trading was insisted on, so as to (seemingly) allow mitigation, rather than reduction/cessation, of emissions from industrial production. Repeated utterances of the positive impacts of carbon markets in terms of reducing emissions and speeding the transition to a low-carbon economy, however, were also met with equally repetitive and forceful claims that carbon markets have failed. The polarised disagreement between these positions and the numbers supporting them demonstrates that climate management and carbon markets are not merely technical problems that can be fixed by measurement, modelling and technocratic solutions. They are political problems representing highly divergent values and worldviews. This essay asks questions about how anthropogenic climate change is understood, and which responses are promoted as appropriate for this systemic predicament. It argues that ontological dimensions are at play here, arising from different ways of seeing and knowing the world.

## The Push and Pull of Climate ‘Agreements’<sup>1</sup>

In building up to the 26<sup>th</sup> United Nations Conference of the Parties (COP26) on the Framework Convention on Climate Change (UNFCCC), it is worth recalling the intense debate, planning and redrafting of texts preceding the so-called Paris Agreement of COP21 in 2015. In the run-up to any UN COP (or ‘Summit’), government negotiators engage in multiple redrafts of the deal to be agreed by the Convention deadline.<sup>2</sup> Their every edit is scrutinised by those with varying interests in the exact wording of the deal (Yeo 2015).

Market-based instruments (MBIs) play a key but controversial role in these negotiated texts regarding how climate change mitigation is to be achieved. The International Carbon Action Partnership (ICAP) thus submitted to the 2015 Conference Working Group a call for the Paris Agreement to support the use of market mechanisms to help countries achieve the targets laid down in their Intended Nationally Determined Contributions (INDCs) (ICAP 2015). Other organisations argued instead that carbon pricing, trading and markets fail to do what they are repetitively promised to do.

Many social movements and environmental NGOs campaign vigorously against the ‘false solution’ of carbon markets. They see market mechanisms as legitimising capitalist structures at the root of fossil fuel production and consumption, as well as of growing global

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1 This essay develops a blog by the same title first published in November 2015 by the Sheffield Political Economy Research Institute for their series of blogs coinciding with the 2015 Paris UNFCCC COP—see <http://speri.dept.shef.ac.uk/2015/11/19/speri-spotlight-on-the-un-climate-summit-part-2/> (longer version at <https://the-natural-capital-myth.net/2015/11/19/on-climate-change-ontologies-and-the-spirits-of-oil/>).

2 See, for example, texts produced by the UN Ad Hoc Working Group on the Durban Platform For Enhanced Action (ADP), including an eighty-six-page ‘Negotiating Text’ released on 12 February 2015, followed by a seventy-six-page ‘Draft Agreement’ released on 24 July, greatly reduced to a twenty-page ‘Draft Agreement’ by the Conference co-chairs, Dan Reifsnyder from the US and Ahmed Djoghlaif from Algeria, released on 5 October 2015: UNFCCC Negotiating Text (Unfccc.int, 2015), [https://unfccc.int/files/bodies/awg/application/pdf/negotiating\\_text\\_12022015@2200.pdf](https://unfccc.int/files/bodies/awg/application/pdf/negotiating_text_12022015@2200.pdf); UNFCCC Draft Agreement (Unfccc.int, 2015), <https://unfccc.int/resource/docs/2015/adp2/eng/4infnot.pdf>; UNFCCC Draft Agreement (Unfccc.int, 2015), <https://unfccc.int/resource/docs/2015/adp2/eng/8infnot.pdf>.

inequities in wealth concentration,<sup>3</sup> emphasising poor outcomes of carbon pricing in realising deep decarbonisation (Rosenblum et al. 2020). Echoing campaigns at previous COPs, climate justice activists mobilise instead for much more ambitious international collaboration and cooperation, their activities at COP21 framed around setting out the minimal necessities for a liveable planet as “red lines” that must never be crossed (Hudson 2015). For COP26, carbon markets are set to again be a critical dimension of concern for activists seeking to “stop climate chaos” (Stop Climate Chaos Scotland 2020).

These contrary positions—the notion that pricing and trading carbon on markets is essential for reducing climate-forcing carbon emissions *versus* the notion that carbon markets make money for trading parties but fail to reduce carbon emissions—drive the push and pull of international climate negotiations. Polarised disagreement between these positions and the numbers used to support them demonstrates, however, that climate management and carbon markets are *not* only technical problems that can be fixed by measurement, modelling and technocratic solutions. As Hulme, Bigger et al., Durand-Delacre et al., Hannis, and Bracking also clarify in this volume for different dimensions of climate change measurement and management, they are political problems revealing highly divergent values and worldviews.

### High Stakes / End Times?

It has become normal in pre-summit moments to assert that the stakes are high. How high they may be is connected with observations of a series of rapidly accelerating changes in socioeconomic and earth system indicators associated with global economic and human population growth since World War II (Steffen et al. 2015). These changes include marked increases in atmospheric methane and carbon dioxide levels, both of which correspond with higher climate temperatures. Methane and carbon dioxide are now at levels that constitute a data outlier whose prediction would have been improbable if simply extrapolating from levels over the previous 800,000 years (IGBP 2015). Given that

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3 For figures, see ‘Global Inequality’ (Inequality.org, 2020), <https://inequality.org/facts/global-inequality/>.



the previous 800,000 years indicate that climate temperature is tightly coupled with levels of both atmospheric methane and carbon dioxide (IGBP 2015 and references therein), it is reasonable to assume that climate temperature levels will rise too. And since temperature is a factor in the geographical presence or absence of species, it is also reasonable to assume that significantly rising temperatures will have significant implications for species, not to mention for human cultural and economic activity. This is why there is a UN Framework Convention on Climate Change, and why people are so concerned about the probable impacts of actual and predicted climate change. As Naomi Klein (2015) asserts, “this changes everything”.

Moreover, the connected and recursive feedback loops at play between atmospheric gases, climate temperatures and biocultural materialities suggest that the momentum of changing values is becoming greater in magnitude. These circumstances indicate the sorts of ratcheted up interactions that chaos and complex systems theories predict will generate significant but not necessarily predictable system shifts (Prigogine 1997), implying “a massive, imminent phase transition in human historical experience” (Danowski and Viveiros de Castro 2017: 18). The linking of COVID-19 with habitat changes linked in turn with climate change, might constitute one of these kinds of system shifts (The Lancet 2020). If this is indeed the case, then we are on the cusp of changes which contemporary calculative and forecasting practices may be unable to foretell with any degree of accuracy. The horizon of the future is increasingly murky, giving rise to a sense that we are *Living in the End Times*, as philosopher Slavoj Žižek (2011) has put it.

But crises are opportunities too (Klein 2008). Credit Suisse (2020) proclaims “Climate change—Decarbonizing the economy” to be a “Supertrend” for investment, its relevance underpinned by “the global COVID-19 pandemic”. Economists, accountants and financiers tinker with methodologies for designing and embedding calculated and priced units of nature further into economic spreadsheets and capital asset reports, seeking ‘solutions’ to the impacts of these system changes that simultaneously sustain economic momentum (Asiyanbi 2017; Sullivan 2018). Climate change management and ecological health thus become further enmeshed with an economic machine that is itself an engine of volatility, leaving societal and environmental damage in its wake. Yes, the stakes are high.

## What's Ontology Got to Do with It?

To put this differently, a shift in the complex dynamic system we call Earth is being generated by an expansionary economic culture based on particular practices of extraction, measurement, calculation, accounting and accumulation of 'value'. This 'culture' is itself built on recursivity (i.e. positive feedback). Capitalist values and production practices drive the accumulation and concentration of 'surplus' value and monetised assets, such that capital concentrates exponentially (Marx 1974[1867]; Luxemburg 2003[1913]). Notwithstanding the efficiency drive invoked by Halme and colleagues, this volume, the movements of commodity prices demonstrate trending and volatility, rather than unrisky 'market efficiency': they are characterised by an abundance of seemingly improbable or erratic price swings, rather than by a normal distribution around a mean (Mandelbrot and Hudson 2006).

Yet this hegemonic economic 'culture' is conventionally perceived to be efficient, rational, potentially equitable and predictable. In projecting its own image on to beyond-human natures, it misperceives the complex biophysical system within which it is embedded. Seeing only a complicated but predictable and accountable machine, its truth claim is that management may be perfected simply through better measurement and calculation of the carbon and 'natural capital' 'units' of which it is considered made (EU 2014).

Such measurement, however, selectively *determines* what becomes visible to markets, whilst disavowing the recursive and unpredictable nature of the interacting biophysical phenomena exceeding the balance sheets that thereby arise. In acting to consolidate forms of wealth that are amenable to such calculation, they may amplify, rather than reduce, system parameters that enhance volatility (Sullivan and Hannis 2017). Claims to pragmatism and superior expertise framed as beyond ideology (Helm 2015) additionally occlude different knowledges and values, effecting a climate management colonialism that denies the self-determination of cultural perspectives that think—with consistency and coherence—otherwise (Clastres 2010).

Through these multiple collisions of phenomena that are complex, organic and unpredictably emergent with thinking that is complicated, calculative and predictably additive, conditions for improbable catastrophic events are likely to be enhanced rather than reduced. These

are, in part, *ontological concerns* arising from different ways of seeing and knowing the world: from different ways of understanding both the nature of nature, and the nature of appropriate forms of use, value and appreciation that humans negotiate with the beyond-human natures with which we co-exist and retain evolutionary kinship. Ontology is the study and naming of the fundamental, assumed, and known nature of reality (Sullivan 2017). It defines what entities exist, into what categories they can be sorted, and by what practices and modes of verification they can be known. Cultural and historical differences and agreements shape ontological perception and understanding, and imply the possibility of diverse, consistent and coherent explanations of causality regarding socioecological change and appropriate responses to this (Burmann 2017; also see Dieckmann, this volume), as considered further below.

## On The Spirit(s) of Oil

Let us step for a moment towards the cosmology of Sápara ('Zapara') peoples of Pastaza in the upper Amazon Forest of Ecuador. I learned a little of their shared worldview through meeting, some years ago, Manari Ushigua, formerly Vice-President of the Confederation of all the Indigenous Nationalities of Ecuador (CONAIE) and later President of the Bi-National Sápara Federation of Ecuador and Peru (Ushigua and Tryon 2020).<sup>4</sup> Fewer than 600 Sápara live on land sustaining biological diversity with which Sápara culture, language, and cosmology have long been entangled. Only four individuals, Manari included, now speak the Sápara language,<sup>5</sup> which in 2001 was recognised by the UN's Educational, Scientific and Cultural Organization (UNESCO) as a unique "depository" of intangible cultural heritage and memory of the people and the region.<sup>6</sup>

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4 Manari travelled to the UK through the support of the Pachamama Alliance (<https://www.pachamama.org/>) and the School of Movement Medicine (<https://www.schoolofmovementmedicine.com/>), with whom I was studying dance movement at the time.

5 Naku North, 'The Sapara History and Legend' (Nakunorth.com, 2020), <https://nakunorth.com/sapara/>.

6 See UNESCO, 'Oral heritage and cultural manifestations of the Zápara people' (Ich.unesco.org, 2020), <https://ich.unesco.org/en/RL/oral-heritage-and-cultural-manifestations-of-the-zapara-people-00007>.



For several years, Sápára have engaged in intense struggles to retain their land and the integrity of the forest that is their home, in the face of enormous pressure for the extraction of oil from beneath Sápára territory. Sápára legally own their land, and Ecuador has appeared to be a leading light on environmental issues due to its constitutional recognition of the “Rights of Nature” (Republic of Ecuador 2008). Nonetheless, the Ecuadorean government claims rights to below-ground fuels and minerals, meaning that huge areas of the Amazon are cut up into blocks franchised for prospecting—and potentially for extraction—to international oil corporations (as shown in Figure 3).

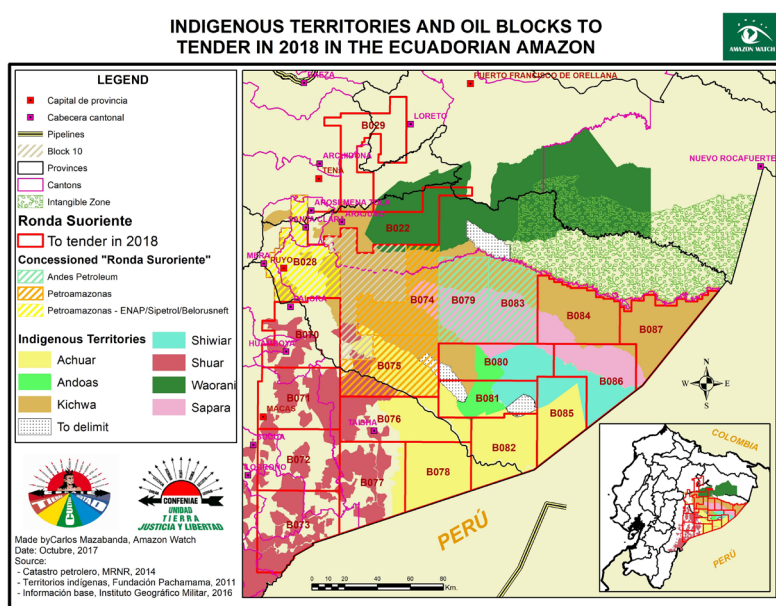


Fig. 3. Indigenous territories and tendered oil blocks in the Ecuadorian Amazon, 2018. ©Amazon Watch, public domain, <https://amazonwatch.org/news/2017/1026-amazonian-indigenous-peoples-reject-ecuadors-plans-for-new-oil-tender>

In October 2019, sustained resistance by Sápára to oil extraction from these lands led to the extraordinary granting by Ecuador’s Ministry of Energy and Non-Renewable Natural Resources of a *force majeure* request to the company concerned—Andes Petroleum Ltd Ecuador (Amazon Watch 2019). Although succeeding to halt oil extraction for the time being, we can see here how fossil fuel momentum unfurled even in

the midst of more than two decades of climate change negotiations intent on managing and reducing carbon emissions. In this case, the normalisation of fossil fuel extractive rights continued, even though the area is considered by ecologists to be amongst the most biodiverse localities on the planet, its sustenance arguably simultaneously entwined with that of Sápara language and knowledge (see, for e.g., Gorenflo et al. 2012).

Sápara ontology, as spoken of by Manari Ushigua, affirms the presence of spirit beings deep in the earth associated with the oil found there. These spirits confer vitality to the oil, also nourishing different spirit beings around five metres below the surface of the soil, which in turn animate the roots of plants that burst through the surface of the soil to provide food and habitat to animals and humans dwelling above the earth's surface. In this spirited understanding of the connected nature of being—in which mineral, plant and animal-human entities are animate and mutually nourishing—extraction of the earth's potent below-ground materials disrupts the lifeforce of the connected entities above ground. This perspective affirms that the zone of life on earth referred to as the 'biosphere' by environmental scientists, is intractably entwined with fluids and minerals found deep in the earth. Above-ground socio-ecological health and diversity is connected with the spirited liveliness of intact below-ground fluids and minerals.

There are echoes of this spirited earth ontology in many other cultural contexts. U'wa of Colombia reportedly understand oil as the blood of a mothering earth, and in the late 1990s threatened collective suicide in protest against the affront of oil exploitation by US-based corporation Occidental Petroleum (Global Nonviolent Action Database 2011). American Indian Movement activist the late John Trudell (2000) describes another potent mineral—uranium—as a spirited "DNA" of the earth, from which industrial mining-refinement processes create a mutated form of power that ultimately is toxic to life.

These perspectives and the distinct, but diverse, 'indigenous paradigm' they invoke suggest that the effects of pulling fuel and minerals out of the earth may be more unpredictable, mysterious and far-reaching than the echoes of an Enlightenment mechanistic worldview are able to register. They give weight to an understanding that the holes puncturing earth through mining processes, coupled with changes in

atmospheric composition caused by pumping mined elements into the layer of gases permitting life to thrive on earth, are causing sickness in the living, breathing body of the earth itself.

### Compassion in an Apocalyptic Moment?

Of course, there is complexity here too. Manari flew to the UK using the substance whose exploitation threatens his people with extinction. We are all caught within the web of industrial-techno-capitalism in ways that make it impossible to fully shrug off our culpability in systemic planetary changes that many consider are drawing us towards broad spectrum catastrophe (discussed further in Sullivan, Chapter 11 in this volume). And seeking to learn from those living in the recent echo of colonialism's extractive impetus might be construed as one more colonising engagement, this time to capture and extract "indigenous knowledge" (see Dieckmann this volume).

These paradoxes constitute critical challenges for our times. To sit with compassion for our own accountability for the losses now occurring; whilst acting for the possibility of systemic change that prevents these losses. To face what can seem to be the impossibility of reorienting the global compass bearing away from financial profit and economic growth; whilst keeping hope alive for a systemic re-orientation towards equitable socio-ecological relationships in which a diversity of beings and cultures may flourish.

Placing indigenous realities at the heart of UNFCCC negotiations requires taking seriously perspectives and ontologies that view the nature of climate change differently. Perhaps it is for this reason that indigenous concerns have tended to be sidelined in the COPs, even though a widening of the circle of perspectives regarding this critical juncture for humankind is desperately needed to strengthen the legitimacy of these talks that affect us all. To echo Yukon leader Stanley James, commenting on the slow pace of negotiations at COP15 in Copenhagen in 2009: "we need to have the aboriginal people at the table with those government people ... then things will change, I think" (CBC News 2009).

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